

A.S. Dovzhenko, A.A. Terpugov

Military Educational and Scientific Center of the Air Force
«N.E. Zhukovsky and Y.A. Gagarin Air Force Academy»
Voronezh, Russia

THE THEMATIC GROUP «INFORMATION TECHNOLOGIES» IN THE ENGLISH LANGUAGE

Abstract: The article deals with the national specificity of the English thematic group «Information technologies». The aim of the undertaken research was to describe and analyze the composition of the group. The components of this group were selected from the Dictionary of the information security terms. The research has shown that the English thematic group «Information technologies» comprises 519 lexical units, which were categorized according to the semantic criteria into six subgroups: 1) The names of people involved in the sphere of the information technologies (IT); 2) The names of the attributes of the IT; 3) The names of the attacks in the sphere of the IT; 4) The names of the documents connected with the IT; 5) The names of actions performed in the sphere of the IT; 6) The names of the IT characteristics. The group structure analysis has revealed 6 subgroups, 24 minigroups, 10 microgroups, thus 40 structural elements in total.

Keywords: the thematic group, national specificity, Information technologies.

А.С. Довженко, А.А. Терпугов
ВУНЦ ВВС «Военно-воздушная академия имени профессора
Н.Е. Жуковского и Ю.А. Гагарина»
Воронеж, Россия

ТЕМАТИЧЕСКАЯ ГРУППА «ИНФОРМАЦИОННЫЕ ТЕХНОЛОГИИ» В АНГЛИЙСКОМ ЯЗЫКЕ

Аннотация: В статье рассматривается национальная специфика тематической группы «Информационные технологии» в английском языке. Цель проведенного исследования – определить состав тематической группы «Информационные технологии» в английском языке и структурировать ее по семантическому критерию. Материалом исследования послужили субстантивные единицы, отобранные методом сплошной выборки из Словаря терминов по информационной безопасности. Анализ показал, что тематическая группа «Информационные технологии» в английском языке включает в себя 519 лексических единиц, которые подразделяются на 6 подгрупп: 1) Наименования лиц, специализирующихся в сфере информационных технологий (ИТ); 2) Наименования средств, применяемых в сфере ИТ; 3) Наименования видов атак на программное обеспечение; 4) Наименования документации, связанной с информационными технологиями; 5) Наименования действий, производимых в сфере ИТ; 6) Наименования свойств информационных технологий. Анализ структурной сложности выявил, что данная группа лексики состоит из 6 подгрупп, 24 минигрупп, 10 микрогрупп, итого – 40 структурных единиц.

Ключевые слова: тематическая группа, национальная специфика, информационные технологии.

The article deals with the national specificity of the English group «Information technologies». The aim of the undertaken research was to describe and analyze the composition of the group. The components of this

group were selected from the Dictionary of the information security terms [1].

The research has shown that the English thematic group «Information technologies» comprises 519 lexical units, which were categorized according to the semantic criteria into 6 subgroups: 1) The names of people involved in the sphere of the information technologies (IT); 2) The names of the attributes of the IT; 3) The names of the attacks in the sphere of the IT; 4) The names of the documents connected with the IT; 5) The names of actions performed in the sphere of the IT; 6) The names of the IT characteristics.

The first subgroup «The names of people involved in the sphere of the IT» comprises 22 lexical units, which were united into three minigroups:

- 1.1 General names of people involved in the sphere of the IT;
- 1.2 The names of people whose activities are connected with the IT;
- 1.3 The names of people who perform illegal actions in the sphere of the IT.

The first minigroup comprises 3 lexemes, which denote the general names of people involved in the sphere of the IT (entity; party; subject), and a microgroup «The names of users» (abonent; authorised user; subscriber etc.).

The second minigroup «The names of people whose activities are connected with the IT» includes two lexemes which denote «The names of information owner» (information owner) and «The names of information users» (data medium).

The third minigroup «The names of people who perform illegal actions in the sphere of the IT» consists of the following microgroups:

- 1) «General names of people who perform illegal actions in the sphere of the IT» (adversary; attacker; eavesdropper etc.);
- 2) «The names of people who perform definite illegal actions in the sphere of the IT» (cardseller; hacker).

The second subgroup «The names of the attributes of the IT» is made up of 223 lexical units, has a complex structure and consists of 10 minigroups:

- 1) «The names of the attributes aimed at the information protection» (protection facility; cryptofilter etc.);
- 2) «The names of the attributes aimed at software hacking» (mail bomb etc.);
- 3) «The names of data» (data; user data etc.);

4) «The names of the programs at risk» (secure operating system; virtual private network etc.);

5) «The names of the organizations, the programs of which are at risk» (security operation center etc.);

6) «The names of code/key» (once-only key; public key etc.);

7) «The names of programs» (spyware; malware etc.);

8) «The names of signature» (multiple digital signature; qualified electronic signature etc.);

9) «The names of communication» (message; spam etc.);

10) «The names of data medium» (data medium etc.).

The third subgroup «The names of the attacks in the sphere of the IT» includes 41 lexical units, which are united in the following four minigroups:

1) The first minigroup «The names of the attacks according to its aim» comprises 8 lexemes (replay attack; sniffing; spoofing etc.);

2) The second minigroup «The names of the attacks according to the method of action» includes two microgroups:

2.1 «The names of the attacks, which apply the differential method» (differential attack; differential fault attack etc.);

2.2 «The names of the adaptive attacks» (adaptive attack; adaptive chosen-ciphertext attack etc.).

The following lexical units also belong to the subgroup «The names of the attacks in the sphere of the IT»: active attack; brute-force attack; ciphertext-only attack; correlation attack; dictionary attack; equivalent keys attack; known plaintext attack; linear attack; man-in-the-middle; man-in-the-middle attack; meet-in-the-middle attack; memory-used search attack; memory using attack; moving probable word attack; passive attack; password attack; sequential key search; zero day attack.

3) The third minigroup «The names of the attacks according to the object of action» is made up of 8 lexical units (computer attack; loophole; network attack etc.)

4) The fourth minigroup «The names of the potential attacks» includes a single lexeme – incident.

The fourth subgroup «The names of the documents connected with the IT» consists of 38 lexemes, which were united in the following minigroups:

1) «The names of the protocol» (protocol; message authentication protocol etc.);

2) «The names of the standard» (open standard; secure hash standard etc.);

3) «The names of the concept» (national security concept etc.);

4) «The names of the instruction» (technical regulation etc.).

The fifth subgroup «The names of actions performed in the sphere of the IT» consists of 164 lexical units, which constitute three minigroups.

1) «The names of information processing actions» (program verification; packet filtering etc.);

2) «The names of actions connected with the cryptography» (cryptanalysis; cryptosynthesis etc.);

3) «The names of actions aimed at providing information security». This minigroup is divided into the following microgroups: a) the names of access (shared access; two-factor authentication etc.); b) the names of information protection actions (protection of information security etc.); c) the names of coding (public key distribution; software encryption etc.); d) the names of testing (serial test; run test etc.); e) the names of certification (protection level certification etc.).

The last subgroup «The names of the IT characteristics» includes 31 lexemes (reliability; strength of function etc.).

The undertaken research has shown that the English thematic group «Information technologies» comprises 519 lexical units. The group structure analysis has revealed 6 subgroups, 24 minigroups, 10 microgroups, thus 40 structural elements in total.

The next stage of the research will be devoted to the analysis of the Russian thematic group «Information technologies», comparison of these two groups in both languages with the aim to identify the national peculiarities.

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