Назва	Using a Technology for Identification of Semantically Connected Text Elements to Determine a Common Information Space
Інша назва	Использование технологии идентификации семантически связных элементов текста для определения единого информационного пространства
Автори	S. V. Petrasova, N. F. Khairova С.В. Петрасова, Н.Ф. Хайрова
Ключові слова	semantic connectivity, information space, semantic and grammatical characteristic, semantic equivalence predicate, collocate, collocation семантическая связность, информационное пространство, семантико-грамматические характеристики, предикат семантической эквивалентности, коллокат, коллокация
Дата публікації	2017
Видавництво	Springer
Бібліографічний опис	Petrasova, S.V., Khairova, N.F.: Using a Technology for Identification of Semantically Connected Text Elements to Determine a Common Information Space. Cybernetics and Systems Analysis 53, pp. 115–124, New York (2017).
DOI	10.1007/s10559-017-9912-z
Реферат	A technology is proposed that makes it possible to determine the common information space of actors of social networks by identifying the semantic equivalence of collocations in texts. The technology includes a model of formal description of semantic and grammatical characteristics of collocates, identification of collocations, and determination of a semantic equivalence predicate of two-word collocations. Предложенная технология позволяет определять единое информационное пространство акторов социальных сетей за счет идентификации семантической эквивалентности коллокаций в текстах. Технология включает модель формального описания семантико-грамматических характеристик коллокатов, идентификацию коллокаций и определение предиката семантической эквивалентности двухсловных коллокаций.
References	1. A. G. Dodonov, D. B. Lande, and V. G. Putyatin,

Computer Networks and Analytical Investigations [in Russian], Institute of Problems of Information Registration of NASU, Kyiv (2014).

2. M. Kastels, Information Epoch: Economy, Society, and Culture [Russian translation], GU-VShE, Moscow (2000).

3. N. F. Khairova and S. V. Petrasova, Intelligent Information Systems and Semantic Web: A Textbook [in Russian], NTU "KhPI," Kharkiv (2015).

4. N. V. Arefyev, A. I. Panchenko, A. V. Lukanin, et al., "Evaluating three corpus-based semantic similarity systems for Russian," in: Proc. Yearly Intern. Conf. "Dialog," Computer Linguistics and Intelligent Technologies, No. 14(21), Vol. 2: Reports of Special Sections, Izd. RGGU, Moscow (2015), pp. 106–119.

5. N. V. Salomatina, V. D. Gusev, and L. Yu. Ilyina, "Opportunities for automation in revealing connections between data domain terms (illustrated by the example of catalysis)," in: Proc. Yearly Intern. Conf. "Dialog," Computer Linguistics and Intelligent Technologies, No 9 (16), Izd. RGGU, Moscow (2010), pp. 430–436.

6. T. Hasegawa, S. Sekine, and R. Grishman, "Discovering relations among named entities from large corpora," in: Proc. 42nd Annual Meeting on Association for Computational Linguistics (ACL'04), Stroudsburg, PA, USA (2004), pp. 415–422.

7. R. Bunescu and R. Mooney, "Learning to extract relations from the web using minimal supervision," in: Proc. 45th Ann. Meeting on Association for Computational Linguistics (ACL'07), Prague, Czech Republic (2007), pp. 576–583.

8. A. Culotta, A. McCallum, and J. Betz, "Integrating probabilistic extraction models and data mining to discover relations and patterns in text," in: Proc. Human Language Technology Conference of the North American Chapter of the Association of Computational Linguistics, New York (2006), pp. 296–303.

9. S. Nakov, "Automatic acquisition of synonyms using the web as a corpus," in: Proc. 3rd Ann. South-East European Doctoral Student Conference, Vol. 2 (2008), pp. 216–229.

10. Hua Wu and Ming Zhou, "Optimizing synonym extraction using monolingual and bilingual Re-sources," in: Proc. 2nd Intern. Workshop on Para-Phrasing (PARAPHRASE '03), Stroudsburg, Vol. 16, PA, USA (2003), pp. 72–79.

11. I. S. Misuno, D. A. Rachkovskij, and S. V. Slipchenko, "Vector and distributed representations reflecting a measure of semantic word association," Mathematical Machines and Systems, No. 3, 50–66 (2005).

12. O. A. Mitrofanova, "Semantic distances: Problems and perspectives," in: Proc. XXXIVth Intern. Philol. Conf., St. Petersburg State University (2005), pp. 59–63.

13. K. W. Church and P. Hanks, "Word association norms, mutual information, and lexicography," Computational Linguistics, Vol. 16, Iss. 1, 22–29 (1990).

14. S. Evert and B. Krenn, "Methods for the qualitative evaluation of lexical association measures," in: Proc. 39th Annual Meeting on Association for Computational Linguistics (ACL'01), Stroudsburg, PA, USA (2001), pp. 188–195.

15. V. P. Zakharov and M. V. Khokhlova, "Extracting terminological phrases by different association measures," in: Internet and Modern Society "IMS-2014," ITMO University, SPb. (2014), pp. 290–293.

16. Y. S. Akinina, I. O. Kuznetsov, and S. Y. Toldova, "The impact of syntactic structure on verb-noun collocation extraction," in: Proc. Yearly Intern. Conf. "Dialog," Computer Linguistics and Intelligent Technologies, No. 12(19), Vol. 1: Main Program of the Conference, Izd. RGGU, Moscow (2013), pp. 2–17.

17. Hua Wu and Ming Zhou, "Synonymous collocation extraction using translation information," in: Proc. 41th Annual Meeting on Association for Computational Linguistics (ACL'03), Vol. 1, Stroudsburg, PA, USA (2003), pp. 120–127.

18. P. Marius and D. Péter, "Aligning needles in a haystack: Paraphrase acquisition across the web," in: Proc. 2nd Intern. Joint Conf.: Natural Language Processing (IJCNLP 2005), Jeju Island, Korea (2005), pp. 119–130.

19. R. Barzilay and Kathleen R. McKeown, "Extracting paraphrases from a parallel corpus," in: Proc. 39th Annual Meeting on Association for Computational Linguistics (ACL'01), Stroudsburg, PA, USA (2001), pp. 50–57.

20. N. Khairova, S. Petrasova, and A. P. S. Gautam, "The logical and linguistic model for automatic extraction of collocation similarity," Econtechmod: An International Quarterly Journal on Economics in Technology, New Technologies, and Modelling Processes, Lublin–Rzeszow, Vol. 4, No. 4, 43–48 (2015).

21. N. F. Khairova, S. V. Petrasova, and S. V. Lenkov,

	"Method for automatic identification of semantic correlations between glossary terms," Collected Papers of the Military Institute of the Taras Shevchenko National University of Kyiv, Iss. 46, 222–228 (2014). 22. G. G. Pivnyak, B. S. Busygin, M. M. Divizinyuk, et al., The Explanatory Dictionary on Informatics [in Ukrainian], National Mining University, Donetsk (2010). 23. J. G. Breslin, A. Harth, U. Bojars, and S. Decker, "Towards semantically-interlinked online communities," in: Proc. 2nd European Conf. on the Semantic Web: Research and Applications, Springer-Verlag, Berlin–Heidelberg (2005), pp. 500–514
Location	https://link.springer.com/article/10.1007/s10559-017-9912-z