

**СЕКЦИЯ 19. ГЕОЛОГИЯ, ГОРНОЕ И НЕФТЕГАЗОВОЕ ДЕЛО. ПОДСЕКЦИЯ 1.
ПРОБЛЕМЫ МЕЖЪЯЗЫКОВОЙ ПРОФЕССИОНАЛЬНОЙ КОММУНИКАЦИИ
В УСЛОВИЯХ ГЛОБАЛИЗАЦИИ**

русском языке, которые доказывают, что нет необходимости пользоваться иноязычной лексикой. Довод за заимствования говорит о том, что при тесном сотрудничестве со странами Европы молодое поколение политиков, бизнесменов, ученых, спортсменов не сможет не принять для активного использования иноязычную лексику в силу того, что большая часть ее является терминами [2].

Появление в русском языке таких варваризмов как лук /look/, лайк /like/, ноутбук /notebook/, сканеры /scanner/, смайлик /smiley/, органайзер /organizer/, постер /poster/, кэшбэк /cashback/, мерчендайзер /merchandiser/, сайт /site/, лоукост /low cost/, браузер /browser/, супервайзер /supervisor/ и бесконечного множества других английских лексических единиц свидетельствует о том, что на современном этапе в русском языке несколько ослаблен внутренний контроль.

Итак, стоит ли опасаться такой экспансии? Как было сказано выше, язык – это развивающийся организм, поэтому, с одной стороны, вторжение определенного количества новых лексических единиц в язык даже необходимо, так как это не только не нарушает его развитие, а даже обогащает язык. С другой стороны, встает вопрос о количестве таких единиц. Если их в языке появляется чрезмерно много, тогда на лицо процесс оккупации, т.к. вновь пришедшие слова начинают вытеснять доморожденные [5].

Таким образом, когда наступает критическая точка в процессе такого вторжения, то в языке начинают включаться защитные механизмы. Он приступает к самоочищению, то есть предпринимает попытку избавиться от всего ненужного, лишнего, оставляя только тот лексический материал, который необходим, который нашел свое место в языке и который, наконец, закрепился в словаре и пополнил лексический корпус языка.

Литература

1. Белоусов В.Н. Русский язык в ближнем зарубежье и русская речь в российских средствах массовой информации. – М.: Наука, 2000.
2. Воротников Ю.Л. О некоторых особенностях языка средств массовой информации. – СПб.: Просвещение, 1999.
3. Гурьева Т.Н. Новый литературный словарь / Т.Н. Гурьева. – Ростов н/Д, Феникс, 2009, с. 45.
4. Колесов В.В. Русская речь. Вчера. Сегодня. Завтра. – СПб. 1998.
5. Лейконт П. А. Современный русский язык, 2007.

CITIZEN SCIENCE IN SMART CITIES¹

F. E. Arealo Leon

Scientific adviser - associate professor N.A. Goncharova
National Research Tomsk Polytechnic University, Tomsk, Russia

Contemporary societies are built on the basis of information. Even the old foundations of our world have become data: money and capital move through virtual transactions in the digital economy, and the scales in military and political power relationships are tipped by those who know more. In this new context, the idea of “smart cities” has been conceived to use data and information technologies to improve the lives of people. One of the problems, however, is that collecting and disseminating sufficient and reliable information is still a difficult task. Scientists and city administrations don’t have enough information to evaluate all possible situations and make timely decisions. At the same time, the general population does not know enough about the issues of the areas they live in to effectively participate in the democratic process as active citizens. As such, to confront both of these issues at once, one possible solution could be the use of citizen science.

Also known as “crowd-sourced science”, citizen science is known as an approach that “expands public participation in science and supports alternative models of knowledge production” [3]. In other words, ordinary people can help scientific institutions and governments gather data and monitor phenomena that would otherwise be impossible for traditional research teams. Although this kind of involvement in science by common people has actually existed for quite some time, it is a research strategy that has become much more viable recently thanks to the Internet and new technologies such as smartphones, making it therefore much more accessible and cost-effective.

Of course, citizen science is not without its drawbacks. Projects that use traditional research methods already find it challenging to assure data quality when hiring and extensively training field workers. Therefore, using the help of volunteers that are not familiar with scientific methodology can potentially introduce a lot of errors. Additionally, as some authors point out, there are limits to how complex a citizen science project can be: “Citizen science is often most effective when the approach is simple. Participation is likely to be reduced when protocols are too complex or demanding or recording needs to be repeated over time or in different localities” [5]. However, these dangers should not be overblown, as they can be mitigated with adequate preparation that takes into account possible risks, as Haklay [2] points out: “Citizen science can yield high quality, policy relevant information. Analysts who work with policy makers should be aware of the specific characteristics of such data, and use it appropriately.” Furthermore, there are other important benefits that simply cannot be achieved with other techniques:

“Research is literally ‘opened’ up to members of society and [citizens] often become part of the whole process, thus making science more inclusive. This allows members of the public to learn about, understand and discuss scientific methods, standards and values, developing their overall scientific literacy. This can increase public awareness of the value of scientific

¹ This paper has been produced as a result of the research conducted during the implementation of TPU project “Co-creation of EU Human Smart Cities (CoHuSC)” (600426-EPP-1-2018-1-RU-EPPJMO-PROJECT). This project has been funded with support from the European Commission. This presentation reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information.

research in addressing problems faced in everyday life as well as global challenges. Citizen science can therefore positively influence society by providing opportunities for learning, empowerment, enjoyment of nature, social engagement or enhanced scientific capital.” [3]

Some notable examples that show the potential of citizen science are:

- Community Snow Observations (CSO) has requested the help of travelers to gather samples and take pictures of snow in remote areas, with the help of a smartphone application. Analyzing the chemical composition of these snow deposits is very important since they become sources of potable water during the summer [1].

- The city of Vienna, Austria, has employed the help of citizens and schools to identify the breeding sites of a bird species known as the Common Swift, which are particularly hard to locate. This is done in order to avoid starting new constructions near those sites and endangering the species. It is, therefore, a nature preservation initiative. However, it could only work as a citizen science project, since “the Common Swift breeds in hidden places and the breeding sites cannot be found easily. Often only with the knowledge of residents and neighbors it is possible to identify the breeding sites at all” [6].

- Finally, the Flint Water Study is a remarkable example of how citizen science can empower marginalized groups [4]. After the claims by residents that the water supply was contaminated were ignored by the authorities, students from the Virginia Polytechnic Institute and State University implemented a project in which they provided toolkits and training to the citizens of Flint so that they could gather and analyze water samples. This way, it was proven that the water had dangerously high levels of lead, which finally caused the government to address the problem.

In conclusion, citizen science is an approach that has a lot of potential as tool that is able to provide timely and relevant data for policy-making. As smart cities become more data-driven, citizen science can help ensure that the various urban subsystems do not become alienated from the interests of the common people, as well as contributing to keep communities engaged and informed. Its shortcomings should not deter from exploring its potential, since no technique is perfect, and it can be a powerful instrument for fostering the welfare of smart cities.

References

1. Arendt A. A Citizen Science Campaign to Validate Snow Remote Sensing Products. – Washington, Seattle: Earth Data, NASA, 2019. [Электронный ресурс]. – Режим доступа: <https://earthdata.nasa.gov/community/community-data-system-programs/citizen-science/a-citizen-science-campaign-to-validate-snow-remote-sensing-products>, свободный (15.01.2019)
2. Haklay M. Citizen Science and Policy: A European Perspective. – Washington, DC: Commons Lab, The Woodrow Wilson International Center for Scholar, 2015. – 76 pp. [Электронный ресурс]. – Режим доступа: https://www.wilsoncenter.org/sites/default/files/Citizen_Science_Policy_European_Perspective_Haklay.pdf, свободный (13.01.2019)
3. Hecker S., Haklay M., Bowser A., Makuch Z., Vogel J., & Bonn A. Citizen Science: Innovation in Open Science, Society and Policy. – London: UCL Press, 2018. – 582 p. – [Электронный ресурс]. – Режим доступа: <http://discovery.ucl.ac.uk/10058422/1/Citizen-Science.pdf>, свободный (15.01.2019)
4. Maynard A. Can citizen science empower disenfranchised communities? // The Conversation. – 2006. – [Электронный ресурс]. – Режим доступа: <https://theconversation.com/can-citizen-science-empower-disenfranchised-communities-53625>, свободный (13.01.2019)
5. Росоцк М.Ю., Чапман Д.С., Шепард Л.Д. & Рой Н.Е. Choosing and Using Citizen Science: a guide to when and how to use citizen science to monitor biodiversity and the environment. – Wallingford, Oxfordshire: Centre for Ecology & Hydrology, 2014. – 28 pp. – [Электронный ресурс]. – Режим доступа: https://www.ceh.ac.uk/sites/default/files/sepa_choosingandusingcitizenscience_interactive_4web_final_amended-blue1.pdf, свободный (18.01.2019)
6. Schmeller F. (2018, December 4). Localizing Breeding Sites with Citizens. // Smart City Wien. – 2018. – [Электронный ресурс]. – Режим доступа: <https://smartcity.wien.gv.at/site/en/mapping-the-common-swift-through-citizen-science/>, свободный (18.01.2019)

THE PROBLEM OF USING FOREIGN WORDS IN RUSSIAN LANGUAGE

A.S. Budnitskaya, A.L. Tikhonenko

Scientific adviser - associate professor N.Yu. Gutareva

National Research Tomsk Polytechnic University, Tomsk, Russia

For our scientific and practical work, we chose the topic “The use of foreign words in the Russian language”. Words borrowed from other languages affect our language, and therefore our entire life, our quality of life.

This topic is relevant, as the borrowing of foreign words occurs constantly. We are increasingly feeling the emergence of new concepts and foreign words, synonyms that replace our Russian words. We feel the ebb of true Russian concepts, automatically replace them with foreign ones. This happens because a person is constantly growing need for something new, in particular in new words.

The problem is that, preferring foreign words, we are moving away from using our own Russian words. We easily introduce new concepts and definitions into our lexicon, which sometimes we cannot even explain. On the one hand, using borrowed words, we enrich our speech; we can communicate with other countries and peoples. But on the other hand, we lose the wealth, the ease that defines the uniqueness of our language.

The aim of our work is to find out the reason for borrowing foreign words in the Russian language and the conditions for their existence.