

Сведения о документе

[Вернуться к результатам](#) | 1 из 1

[Экспорт](#) [Скачать](#) [Печать](#) [Электронная почта](#) Сохранить в PDF Сохранить в список
Еще... >

Astra Salvensis
Volume 6, Issue 1, 2018, Pages 665-686

Educational robotics technologies in Kazakhstan and in the world : Comparative analysis , current state and perspectives (Article)

Nurbekova, Z.K., Mukhamediyeva, K.M., Assainova, A.Z.

L. N. Gumilyov Eurasian National University, Kazakhstan S. Toraighyrov Pavlodar State University, Kazakhstan

Краткое описание

▼ Просмотр пристатейных ссылок (83)

Educational robotics has been evolving for quite a long time to talk about accumulated practice in the field of teaching methodologies for robotics . Some distinct directions for organizing of robotics courses have taken shape in developed countries and they are closely bound up with robot development platforms. In Kazakhstan , educational robotics began to develop only in the last couple of years, and, in most cases, teaching methods developed based on the existing robotics teaching technologies in conjunction with robotic platforms. Teachers have faced problems of adapting courses and technologies to the existing Kazakhstani education system, which has a number of specifics. The aim of our work was to study the state of educational robotics in higher schools of Kazakhstan on the example of IT majors. The results showed the main difficulties faced by teachers in organizing study process, mainly associated with the complexity of use of constructive learning methods. In most cases, it was revealed that teachers use methods of cooperation in robotics teaching process. According to the respondents, the content of robotics courses presented in conjunction with robotic platforms is not enough to have students develop professional competence, as such areas as programming, physics of robotics , artificial intelligence are not fully covered. Teachers noted that materials quickly become out-of-date due to the rapidly developing robotic platform. © 2018 Transilvanian Association for the Literarure and Culture of Romanian People (ASTRA). All rights reserved.

Важность темы SciVal

Тема: Robotics | Students | educational robotics

Процентиль важности: 92.657 

Ключевые слова автора

[Constructionism](#) [Educational robotics](#) [Educational technologies](#) [Higher school](#)

ISSN: 23934727

Тип источника: Journal

Язык оригинала: English

Тип документа: Article

Издатель: Transilvanian Association for the Literarure and Culture of Romanian People (ASTRA)

Пристатейные ссылки (83)

Просмотреть в формате результатов поиска >

Все [Экспорт](#) [Печать](#) [Электронная почта](#)

Сохранить в PDF Создать библиографию

Просмотр всех 83 пристатейных ссылок

1 Alimisis, D.

Robotics in education & education in robotics: Shifting focus from technology to pedagogy
(2012) *Proc. 3rd Int. Conf. On Robotics in Education (RiE)*, pp. 7-14. Цитировано 16 раз.
Prague, Czech Republic

2 Julià, C., Antolí, J.Ò.

Spatial ability learning through educational robotics

(2016) *International Journal of Technology and Design Education*, 26 (2), pp. 185-203. Цитировано 7 раз.
doi: 10.1007/s10798-015-9307-2

[View at Publisher](#)

Параметры

Цитаты в Scopus

Взвешенный по области знаний индекс цитирования

 Параметры PlumX
Использования, сбор данных, упоминания, записи в соцсетях и цитирования за пределами Scopus.

Цитирования в О документах

Сообщайте мне, когда этот документ будет цитироваться в Scopus:

[Настроить оповещение о цитировании >](#)

[Настроить канал цитирования >](#)

Связанные документы

Autonomy in human-robot interaction scenarios for entertainment

Pérula-Martínez, R. , Castro-González, Á. , Malfaz, M. (2017) *ACM/IEEE International Conference on Human-Robot Interaction*

You win, I lose: Towards adapting robot's teaching strategy

Meirbekov, S. , Balkibekov, K. , Jalankuzov, Z. (2016) *ACM/IEEE International Conference on Human-Robot Interaction*

Investigating the Effects of a Robot Peer on L2 Word Learning

Van Den Berghe, R. , Van Der Ven, S. , Verhagen, J. (2018) *ACM/IEEE International Conference on Human-Robot Interaction*

Просмотр всех связанных документов исходя из пристатейных ссылок

Найти дополнительные связанные документы в Scopus исходя из следующего параметра:

[Авторы >](#) [Ключевые слова >](#)

- 3 Zawieska, K., Duffy, B.R.
The social construction of creativity in educational robotics
(2015) *Advances in Intelligent Systems and Computing*, 351, pp. 329-338. Цитировано 7 раз.
<http://www.springer.com/series/11156>
doi: 10.1007/978-3-319-15847-1_32
View at Publisher
-
- 4 Wyffels, F., Hermans, M., Schrauwen, B.
Building robots as a tool to motivate students into an engineering education
(2010) *Proc. 1st Int. Conf. On Robotics in Education (RiE)*, pp. 113-116. Цитировано 2 раз.
Bratislava, Slovakia
-
- 5 Perula-Martinez, R., Garcia-Haro, J.M., Balaguer, C., Miguel, A.
Developing educational printable robots to motivate university students using open source technologies
(2016) *Journal of Intelligent & Robotic Systems*, 81 (1), pp. 25-39. Цитировано 6 раз.
-
- 6 Alfieri, L., Higashi, R., Shoop, R., Schunn, C.D.
Case studies of a robot-based game to shape interests and hone proportional reasoning skills ([Открытый доступ](#))
(2015) *International Journal of STEM Education*, 2 (1), art. no. 4. Цитировано 4 раз.
<https://rd.springer.com/journal/40594>
doi: 10.1186/s40594-015-0017-9
View at Publisher
-
- 7 Petre, M., Price, B.
Using Robotics to Motivate "Back Door" Learning
(2004) *Education and Information Technologies*, 9 (2), pp. 147-158. Цитировано 73 раз.
-
- 8 Vollstedt, A.M., Robinson, M., Wang, E.
Using robotics to enhance science, technology, engineering, and mathematics curricula
(2007) *Proceedings of American Society for Engineering Education Pacific Southwest Annual Conference*. Цитировано 10 раз.
Honolulu, Hawaii
-
- 9 Alimisis, D.
Robotics in Education & education in Robotics, pp. 7-14.
-
- 10 Piaget, J., Inhelder, B.
(1967) *The Child's Conception of Space*, pp. 375-418. Цитировано 1514 раз.
New York, W. W. Norton & Co
-
- 11 Papert, S., Harel, I.
(1991) *Situating Constructionism*, pp. 193-206. Цитировано 610 раз.
New York, Ablex Publishing Corporation
-
- 12 Alesandrini, K., Larson, L.
Teachers bridge to constructivism
(2002) *The Clearing House*, 75 (3), pp. 118-121. Цитировано 20 раз.
-
- 13 Cakir, M.
Constructivist approaches to learning in science and their implications for science pedagogy: A literature review
(2008) *International Journal of Environmental & Science Education*, 3 (4), pp. 193-206. Цитировано 52 раз.

- 14 Sabelli, N.
(2008) *Constructionism: A New Opportunity for Elementary Science Education*. Цитирано 6 раз.
Massachusetts Institute of Technology, Media Laboratory, Epistemology and Learning Group

-
- 15 Wilson, B.G.
(1996) *Constructivist Learning Environments: Case Studies in Instrumental Design*. Цитирано 271 раз.
New Jersey, Educational Technology Publications

-
- 16 Alimisis, D.
Robotics in Education & education in Robotics, pp. 7-14.

-
- 17 De Boer, W.F.
(2004) *Flexibility Support for a Changing University*. Цитирано 8 раз.
Doctoral dissertation, Faculty of Educational Science and Technology, University of Twente, Enschede, NL,
Twente University Press

-
- 18 Bourne, J.R., McMaster, E., Rieger, J., Campbell, J.O.
Paradigms for on-line learning: A case study in the design and implementation of an
Asynchronous Learning Networks (ALN) course
(1997) *Journal of Asynchronous Learning Network*, 1 (2), pp. 38-56. Цитирано 48 раз.
<http://www.sloan-c.org/publications/jaln/v1n2/bourne.asp>

-
- 19 Selevko, G.K.
(1998) *Contemporary Educational Technologies. Teaching Guide*
Moscow, Public Education

-
- 20 Guzeyev, V.V.
(1996) *Educational Technology: From Acceptance to Philosophy*. Цитирано 3 раз.
Moscow, Prosveshenie

-
- 21 Pina, A.
Improving learning and motivation of students (10-14 years old) by using educational robotics in different
scholar scenarios
(2015) *Informatization of Education International Scientific and Practical Online-conference*, pp. 14-18.

-
- 22 Perula-Martinez, R., Garcia-Haro, J.M., Balaguer, C., Miguel, A.
Developing educational printable robots to motivate university students using open source technologies
(2016) *Journal of Intelligent & Robotic Systems*, 81 (1), pp. 25-39. Цитирано 6 раз.

-
- 23 Julià, C., Antolí, J.Ò.
Spatial ability learning through educational robotics
(2016) *International Journal of Technology and Design Education*, 26 (2), pp. 185-203. Цитирано 7 раз.
doi: 10.1007/s10798-015-9307-2

[View at Publisher](#)

-
- 24 Alimisis, D.
Robotics in Education & education in Robotics, pp. 7-14.

-
- 25 Kanda, T., Hirano, T., Eaton, D., Ishiguro, H.
Interactive robots as social partners and peer tutors for children : A field trial
(2004) *Human-Computer Interaction*, 19 (1-2), pp. 61-84. Цитирано 483 раз.
<http://www.tandf.co.uk/journals/titles/07370024.asp>
doi: 10.1080/s15327051hc1901&2_4

[View at Publisher](#)

- 26 Okita, S.Y., Ng-Thow-Hing, V., Sarvadevabhatla, R.
Learning together: ASIMO developing an interactive learning partnership with children
(2009) *Proceedings - IEEE International Workshop on Robot and Human Interactive Communication*, art. no. 5326135, pp. 1125-1130. Цитировано 28 раз.
ISBN: 978-142445081-7
doi: 10.1109/ROMAN.2009.5326135
[View at Publisher](#)
-

- 27 Tanaka, F., Matsuzoe, S.
Children teach a care-receiving robot to promote their learning: Field experiments in a classroom for vocabulary learning
(2012) *Journal of HRI*, 1 (1), pp. 78-95. Цитировано 107 раз.
-

- 28 Yoo, J.
Results and outlooks of robot education in Republic of Korea
(2015) *Procedia-Social and Behavioral Sciences*, (176), pp. 251-254.
-

- 29 Alfieri, L., Higashi, R., Shoop, R., Schunn, C.D.
Case studies of a robot-based game to shape interests and hone proportional reasoning skills ([Открытый доступ](#))
(2015) *International Journal of STEM Education*, 2 (1), art. no. 4. Цитировано 4 раз.
<https://rd.springer.com/journal/40594>.
doi: 10.1186/s40594-015-0017-9
[View at Publisher](#)
-

- 30 Barker, B.S., Nugent, G., Grandgenett, N.F.
Examining fidelity of program implementation in a STEM-oriented out-of-school setting
(2014) *International Journal of Technology and Design Education*, 24 (1), pp. 39-52. Цитировано 12 раз.
doi: 10.1007/s10798-013-9245-9
[View at Publisher](#)
-

- 31 Nourbakhsh, I.R., Crowley, K., Bhave, A., Hamner, E., Hsiu, T., Perez-Bergquist, A., Richards, S., (...), Wilkinson, K.
The robotic autonomy mobile robotics course: Robot design, curriculum design and educational assessment
(2005) *Autonomous Robots*, 18 (1), pp. 103-127. Цитировано 66 раз.
doi: 10.1023/B:AURO.0000047303.20624.02
[View at Publisher](#)
-

- 32 Ucgul, M., Cagiltay, K.
Design and development issues for educational robotics training camps
(2014) *International Journal of Technology and Design Education*, 24 (2), pp. 203-222. Цитировано 14 раз.
doi: 10.1007/s10798-013-9253-9
[View at Publisher](#)
-

- 33 Samuels, P., Haapasalo, L.
Real and virtual robotics in mathematics education at the school-university transition
(2012) *International Journal of Mathematical Education in Science and Technology*, 43 (3), pp. 285-301. Цитировано 7 раз.
doi: 10.1080/0020739X.2011.618548
[View at Publisher](#)
-

- 34 Giuseppe, A., Martina, P.
Educational robotics between narration and simulation
(2012) *Procedia-Social and Behavioral Sciences*, (51), pp. 104-109. Цитировано 2 раз.
-

- 35 Sobolevsky, A.C., Sharipova, E.F.
(2014) *Educational Robotics: Teaching Materials*
Chelyabinsk, Chelyabinsk State University of Education

- 36 Krasnobayev, E.A.
(2013) *Laboratory-based Work on "Theoretical Basics of Robotics": Teaching Recommendations*
Vitebsk, P. M. Masherova Vitebsk State University

-
- 37 Ceceri, K.
(2012) *Robotics: Discover the Science and Technology of the Future with 20 Projects*
Vermont, Nomad Press

-
- 38 Kee, D.
(2013) *Classroom Activities for the Busy Teacher: A 10 Week Plan for Teaching Robotics Using the Lego Education EV3 Core Set*
USA, Create Space Independent Publishing Platform

-
- 39 Filipov, S.A.
(2013) *Robotics for Children and their Parents*
Saint Petersburg, Science

-
- 40 Benedettelli, D.
(2014) *The Lego Mindstorms EV3 Laboratory. Build, Program and Experiment with Wicked Cool Robots.* Цитировано 2 раз.
USA, No Starch Press

-
- 41 Griffin, T.
(2014) *The Art of Lego Mindstorms EV3 Programming*
USA, No Starch Press

-
- 42 Valk, L.
(2014) *The Lego Mindstorms EV3 Discovery Book.* Цитировано 18 раз.
USA, No Starch Press

-
- 43 Isogawa, Y.
(2015) *The Lego Mindstorms EV3 Idea Book*
USA, No Starch Press

-
- 44 Pina, A.
Improving learning and motivation of students (10-14 years old) by using educational robotics in different scholar scenarios
(2015) *Informatization of Education International Scientific and Practical Online-coference*, pp. 14-18.

-
- 45 Alimisis, D.
Robotics in Education & Education in Robotics, pp. 7-14.

-
- 46 Barker, B.S., Nugent, G., Grandgenett, N.F.
Examining fidelity of program implementation in a STEM-oriented out-of-school setting

(2014) *International Journal of Technology and Design Education*, 24 (1), pp. 39-52. Цитировано 12 раз.
doi: 10.1007/s10798-013-9245-9

[View at Publisher](#)

-
- 47 Nourbakhsh, I.R., Crowley, K., Bhave, A., Hamner, E., Hsiu, T., Perez-Bergquist, A., Richards, S., (...), Wilkinson, K.
The robotic autonomy mobile robotics course: Robot design, curriculum design and educational assessment

(2005) *Autonomous Robots*, 18 (1), pp. 103-127. Цитировано 66 раз.
doi: 10.1023/B:AURO.0000047303.20624.02

[View at Publisher](#)

- 48 Samuels, P., Haapasalo, L.
Real and virtual robotics in mathematics education at the school-university transition
(2012) *International Journal of Mathematical Education in Science and Technology*, 43 (3), pp. 285-301. Цитировано 7 раз.
doi: 10.1080/0020739X.2011.618548
[View at Publisher](#)
-

- 49 Giuseppe, A., Martina, P.
Educational robotics between narration and simulation
(2012) *Procedia-Social and Behavioral Sciences*, (51), pp. 104-109. Цитировано 2 раз.
-

- 50 Sobolevsky, A.C., Sharipova, E.F.
(2014) *Educational Robotics: Teaching Materials*
Chelyabinsk, Chelyabinsk State University of Education
-

- 51 Perula-Martinez, R., Garcia-Haro, J.M., Balaguer, C., Miguel, A.
Developing educational printable robots to motivate university students using open source technologies
(2016) *Journal of Intelligent & Robotic Systems*, 81 (1), pp. 25-39. Цитировано 6 раз.
-

- 52 Ceceri, K.
(2012) *Robotics: Discover the Science and Technology of the Future with 20 Projects*
Vermont, Nomad Press
-

- 53 (2015) *Making Simple Robots*
Vermont:, Vermont: Nomad Press
-

- 54 Waldron, R.
(2015) *Make: JavaScript Robotics*
San Francisco, Maker Media
-

- 55 Pina, A.
Improving learning and motivation of students (10-14 years old) by using educational robotics in different scholar scenarios
(2015) *Informatization of Education International Scientific and Practical Online-conference*, pp. 14-18.
-

- 56 Matthew, W.B.
(2008) *VBOT: Motivation Computational and Complex Systems Fluencies with Constructionist Virtual/Physical Robotics*
A dissertation Doctor of Philosophy, Evanston, Illinois
-

- 57 Smirnova, N.V.
(1997) *Philosophy and Education: Problems of Teacher's Philosophy Culture*
Moscow, Socium
-

- 58 Bim-Bad, B.M.
(2009) *Encyclopedic Pedagogical Dictionary*
Moscow, Great Russian Encyclopedia
-

- 59 Perera, P.G.
(2008) *How Computer-related Technology is Incorporated into Instructional Methods and Objectives in the Secondary School Classroom*
Dissertation submitted in partial fulfillment of the requirements for the degree of doctor of philosophy in the graduate school of education of Fordham University, New York

- 60 Smith, R.H.
(2009) *Distributed Learning in Designing Curriculum in a One-to-one Computing Environment*
A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Education in
Education Technology, Pepperdine University, USA

-
- 61 Middleton, D.
(2012) *The Perceptions of High School Graduates of Career and Technology Education Courses*
Doctoral Study Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Education
Teacher Leadership, Walden University

-
- 62 Guzeyev, V.V.
(1996) *Educational Technology: From Acceptance to Philosophy*. Цитировано 3 раз.
Moscow, Prosveshenie

-
- 63 Richey, R.C.
Reflections on the 2008 AECT definitions of the field
(2008) *Tech Trends*, 52 (1), pp. 24-25. Цитировано 45 раз.

-
- 64 Januszewski, A., Michael, M.
(2007) *Educational Technology: A Definition with Commentary*. Цитировано 90 раз.
London, Routledge

-
- 65 Papert, S., Harel, I.
(1991) *Situating Constructionism*, pp. 193-206. Цитировано 610 раз.
New York, Ablex Publishing Corporation

-
- 66 Yoon, H.-G., Kim, B.S.
Preservice elementary teachers' beliefs about nature of science and constructivist
teaching in the content-specific context ([Открытый доступ](#))
(2016) *Eurasia Journal of Mathematics, Science and Technology Education*, 12 (3), pp. 457-475. Цитировано 4
раз.
<http://www.ejmste.com/Makale.aspx?kimlik=2448>
doi: 10.12973/eurasia.2016.1210a

[View at Publisher](#)

-
- 67 Alimisis, D.
Robotics in Education & education in Robotics, pp. 7-14.

-
- 68 Pina, A.
Improving learning and motivation of students (10-14 years old) by using educational robotics in different
scholar scenarios
(2015) *Informatization of Education International Scientific and Practical Online-conference*, pp. 14-18.

-
- 69 Alimisis, D.
(2009) *Teacher Education on Robotics-Enhanced Constructivist Pedagogical Methods*. Цитировано 18 раз.
Athens, School of Pedagogical and Technological Education

-
- 70 Pina, A.
Improving learning and motivation of students (10-14 years old) by using educational robotics in different
scholar scenarios
(2015) *Informatization of Education International Scientific and Practical Online-conference*, pp. 14-18.

-
- 71 Giuseppe, A., Martina, P.
Educational Robotics between Narration and Simulation, pp. 104-109.

- 72 Scaradozzia, D., Sorbia, L., Pedalea, A., Valzanoc, M., Verginec, C. Teaching robotics at the primary school: An innovative approach (2015) *Procedia-Social and Behavioral Sciences*, (174), pp. 3838-3846. Цитировано 5 раз.

-
- 73 Kanda, T., Hirano, T., Eaton, D., Ishiguro, H. Interactive robots as social partners and peer tutors for children : A field trial (2004) *Human-Computer Interaction*, 19 (1-2), pp. 61-84. Цитировано 483 раз. <http://www.tandf.co.uk/journals/titles/07370024.asp> doi: 10.1080/07370024.2004.9629544

[View at Publisher](#)

-
- 74 Okita, S.Y., Ng-Thow-Hing, V., Sarvadevabhatla, R. Learning together: ASIMO developing an interactive learning partnership with children (2009) *Proceedings - IEEE International Workshop on Robot and Human Interactive Communication*, art. no. 5326135, pp. 1125-1130. Цитировано 28 раз. ISBN: 978-1424445081-7 doi: 10.1109/ROMAN.2009.5326135

[View at Publisher](#)

-
- 75 Tanaka, F., Matsuzoe, S. Children teach a care-receiving robot to promote their learning: Field experiments in a classroom for vocabulary learning (2012) *Journal of HRI*, 1 (1), pp. 78-95. Цитировано 107 раз.

-
- 76 Yoo, J. Results and outlooks of robot education in Republic of Korea (2015) *Procedia-Social and Behavioral Sciences*, (176), pp. 251-254.

-
- 77 *Kazakhstan Joining the Bologna Process. Official Web-site of the Ministry of Education of the Republic of Kazakhstan* accessed on 12.IX.2017 www.edu.gov.kz

-
- 78 Fullan, M. (1991) *The New Meaning of Educational Change*. Цитировано 4643 раз. Toronto, Ontario Institute for Studies in Education

-
- 79 Alimisis, D. (2009) *Teacher Education on Robotics-Enhanced Constructivist Pedagogical Methods*. Цитировано 18 раз. Athens, School of Pedagogical and Technological Education

-
- 80 Selevko, G.K. (1998) *Contemporary Educational Technologies. Teaching Guide* Moscow, Public Education

© Copyright 2018 Elsevier B.V., All rights reserved.

[← Вернуться к результатам](#) | 1 из 1

[^ Верх страницы](#)

О системе Scopus

Что такое Scopus

Содержание

Блог Scopus

Интерфейсы API Scopus

Вопросы конфиденциальности

Язык

Switch to English

日本語に切り替える

切换到简体中文

切换到繁體中文

Служба поддержки

Помощь

Связь с нами

