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@article{Anderson2012,
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volume = {13},
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Escuela Judicial E-learning and Digital Competences : Some Reflections and Proposals for
Judicial School}},
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@article{Bhuasiri2012,
abstract = {This study identifies the critical success factors that influence the acceptance of
e-learning systems in developing countries. E-learning is a popular mode of delivering
educational materials in higher education by universities throughout the world. This study
identifies multiple factors that influence the success of e-learning systems from the literature
and compares the relative importance among two stakeholder groups in developing
countries, ICT experts and faculty. This study collected 76 usable responses using the
Delphi method and Analytic Hierarchy Process (AHP) approach. The results reveal 6
dimensions and 20 critical success factors for e-learning systems in developing countries.
Findings illustrate the importance of curriculum design for learning performance. Technology
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awareness, motivation, and changing learners' behavior are prerequisites for successful e-learning implementations. Several recommendations are provided to aid the implementation of e-learning systems for developing countries which have relevance for researchers and practitioners. Limitations as well as possible research directions are also discussed. {\textcopyright} 2011 Elsevier Ltd. All rights reserved.},
author = {Bhuasiri, Wannasiri and Xaymoungkhoun, Oudone and Zo, Hangjung and Rho, Jae Jeung and Ciganek, Andrew P.},
doi = {10.1016/j.compedu.2011.10.010},
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url = {http://dx.doi.org/10.1016/j.compedu.2011.10.010},
volume = {58},
year = {2012}
}

@article{Carvalho2010,
abstract = {This paper reports the training of 56 Teachers in ICT and Education Course. This course included one week face-to-face and seven weeks in distance learning. Students developed several ICT competencies during theses weeks, reporting its use in their classes. A characterization of the subjects' digital literacy is presented, as well as their participation in chat sessions and in the forum, which were not mandatory but highly recommended. The majority of students did not participate in the synchronous and asynchronous communication facilities. However, those that participated in the chat sessions and forum debates completed all tasks and assignments. The students recognized the importance of learning about ICT and how it changed their teaching methods. {\textcopyright} IFIP International Federation for Information Processing 2010.},
author = {Carvalho, A A},
file = {C:\backslash\$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/EAD/ICT in Teacher Education.pdf:pdf},
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@article{Pandza2010,
abstract = {The development of modern technology and the Internet has enabled the
explosive growth of distance learning. Distance learning is a process that is increasingly
present in the world. This is the field of education focused on educating students who are not
physically present in the traditional classrooms or student's campus. Described as a process
where the source of information is separated from the students in space and time. If there
are situations that require the physical presence of students, such as when a student is
required to physically attend the exam, this is called a hybrid form of distance learning. This
technology is increasingly used worldwide. The Internet has become the main
communication channel for the development of distance learning.},
author = {Pandza, Haris and Masic, Izet},
doi = {10.5455/aim.2010.18.229-232},
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@article{More2010,
abstract = {In order to achieve the goals of Distance Learning, an effective model of
management is essential and, accordingly, the Student Monitoring System (SMS) is one of
the key factors in the teaching/learning process. Therefore, this study aims to present an
analysis of main agents and SAE technological resources applied to Distance Learning in
the Business Administration Course at Federal University of Santa Catarina (UFSC). The
case study method was used in a qualitative approach. The primary data was collected
through a systematic and participatory observation by the researchers, while the secondary
data was derived from bibliographic and documental research. The conclusions present
analysis results relative to SAE. The process of mediation and interaction between
teachers/tutors and students is highlighted, where the use of Information and
Communication Technologies (ICT) - in particular the Teaching and Learning Virtual
Environment (AVEA, in Portuguese) - contributes to the students' monitoring and
performance. Further emphasis is bestowed upon the role of the tutors, considered the main

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components in the teaching/learning process because of constant interaction and mediation between teachers and students. (English) [ABSTRACT FROM AUTHOR]},
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volume = {7},
year = {2010}
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@article{Rivoltella2008,
abstract = {{\textless}p{\textgreater}O artigo pretende fornecer um quadro-s{\i}ntese da educa{\c{c}}{\a}o a dist{\a}ncia na It{\a}lia. A an{\a}lise feita trabalha sobre um duplo n{\i}vel de reconstru{\c{c}}{\a}o do seu desenvolvimento no pa{\i}s, das primeiras experi{\e}ncias nos anos cinq{\u}enta at{\e} hoje, e da elabora{\c{c}}{\a}o te{\o}rica que foi produzida pela literatura especializada. S{\a}o considerados tr{\e}s {\a}mbitos: a escola, a universidade e a empresa. Em cada um s{\a}o feitas refer{\e}ncias {\a}s experi{\e}ncias de maior relevo desenvolvidas nos {\u}ltimos anos. A hip{\o}tese te{\o}rica que fundamenta esta contribui{\c{c}}{\a}o e que se expressa plenamente na conclus{\a}o {\e} que os instrumentos da Web 2.0 est{\a}o predispondo a uma mudan{\c{c}}a de paradigma capaz de dar novo impulso a um movimento e a um mercado que, nos {\u}ltimos anos, est{\a} estagnado sobre os modelos e as experi{\e}ncias-padr{\a}o.{\textless}p{\textgreater}},
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 }

@article{Almeida2003,
 abstract = {{\textless}p{\textgreater}Os avan{\c{c}}os e a dissemina{\c{c}}{\~{a}}o do uso das tecnologias de informa{\c{c}}{\~{a}}o e comunica{\c{c}}{\~{a}}o (TIC) descortinam novas perspectivas para a educa{\c{c}}{\~{a}}o a dist{\^a}}ncia com suporte em ambientes digitais de aprendizagem acessados via internet. Considerando-se que a dist{\^a}}ncia geogr{\^a}}fica e o uso de m{\^u}}ltiplas m{\^i}}dias s{\~{a}}o caracter{\^i}}sticas inerentes {\^a}} educa{\c{c}}{\~{a}}o a dist{\^a}}ncia, mas n{\~{a}}o suficientes para definirem a concep{\c{c}}{\~{a}}o educacional, discute-se a educa{\c{c}}{\~{a}}o a dist{\^a}}ncia (EaD) n{\~{a}}o como uma solu{\c{c}}{\~{a}}o paliativa para atender alunos situados distantes geograficamente das institui{\c{c}}{\~{o}}es educacionais nem apenas como a simples transposi{\c{c}}{\~{a}}o de conte{\^u}}dos e m{\^e}}todos de ensino presencial para outros meios e com suporte em distintas tecnologias. Os programas de EaD podem ter o n{\^i}}vel de di{\^a}}logo priorizado ou n{\~{a}}o segundo a concep{\c{c}}{\~{a}}o epistemol{\^o}}gica, tecnologias de suporte e respectiva abordagem pedag{\^o}}gica. Este artigo pretende discutir as abordagens usuais da educa{\c{c}}{\~{a}}o a dist{\^a}}ncia, destacando o uso das TIC para o desenvolvimento de um processo educacional interativo que propicia a produ{\c{c}}{\~{a}}o de conhecimento individual e grupal em processos colaborativos favorecidos pelo uso de ambientes digitais e interativos de aprendizagem, os quais permitem romper com as dist{\^a}}ncias espa{\c{c}}o-temporais e viabilizam a recursividade, m{\^u}}ltiplas interfer{\^e}}ncias, conex{\~{o}}es e trajet{\^o}}rias, n{\~{a}}o se restringindo {\^a}} dissemina{\c{c}}{\~{a}}o de informa{\c{c}}{\~{o}}es e tarefas inteiramente definidas a priori.{\textless}/p{\textgreater}}},

author = {de Almeida, Maria Elizabeth Bianconcini},
 doi = {10.1590/S1517-97022003000200010},
 file = {C:\backslash\$.Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/EAD/Educa{\c{c}}{\~{a}}o a dist{\^a}}ncia na internet.pdf:pdf},
 isbn = {1517-9702},
 issn = {1517-9702},
 journal = {Educa{\c{c}}{\~{a}}o e Pesquisa},
 mendeley-groups = {EAD},
 number = {2},
 pages = {327--340},
 title = {{Educa{\c{c}}{\~{a}}o a dist{\^a}}ncia na internet: abordagens e contribui{\c{c}}{\~{o}}es dos ambientes digitais de aprendizagem}},
 url =
 {http://www.scielo.br/scielo.php?script=sci{_}arttext{\&}pid=S1517-97022003000200010{\&}lng=pt{\&}tlng=pt},

volume = {29},
year = {2003}
}

@article{Barreto2003,

abstract = {Como se desenvolve a pesquisa em Tecnologias da Informação e da Comunicação e Educação a Distância: o discurso do MEC, o presente artigo analisa o discurso das políticas de formação de professores em curso no Brasil. Está organizado em quatro seções. A primeira aborda os sentidos atribuídos às tecnologias na educação, na sua relação com os modos pelos quais as tecnologias da Informação e da Comunicação (TIC) têm sido incorporadas aos processos educacionais. Para tanto, focaliza as perspectivas e propostas definidoras da recontextualização das TIC no discurso pedagógico. A segunda seção discute o conjunto das ressignificações que têm sustentado as políticas de formação de professores, com especial destaque para aquelas como a do "divisor digital", bem como para as relações entre o deslocamento do trabalho docente para atividade e tarefa, a proposta da formação baseada em competências e o uso intensivo de tecnologias. Em outras palavras, está centrada na relação entre as TIC e a Educação a Distância (EaD), nas suas múltiplas dimensões. A terceira seção explicita as reduções operadas na incorporação das tecnologias na educação, a partir da análise de discurso dos textos do MEC, cujo movimento principal tem sido o de priorizar a formação de professores a distância, em consonância com as recomendações dos organismos internacionais aos países em desenvolvimento. Finalmente, a quarta seção pontua as tendências atuais das políticas de formação de professores, retomando e remetendo às questões relativas aos sentidos das tecnologias e aos modos da sua apropriação educacional, em diferentes contextos.},

author = {Barreto, Raquel Goulart},

doi = {10.1590/S1517-97022003000200006},

file = {C:\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/EAD/Tecnologias na formação de professores.pdf:pdf},

issn = {1517-9702},

journal = {Educação e Pesquisa},

mendeley-groups = {EAD},

pages = {271--286},

title = {{Tecnologias na formação de professores: o discurso do MEC.}},

volume = {29},

year = {2003}

}

@article{VanBrakel2003,

abstract = {Neither distance learning courses nor utilising information and communication technologies (ICT) to enhance these courses are new to sub-Saharan Africa.

"Long-distance" training by correspondence has been practised here for decades. ICT as basic as e-mail has the potential to enable the remotely situated student to interactively take part in a particular programme. Additional equipment can simulate the lecture environment

by allowing the student to watch a video of a presentation while communicating via telephone. This article is an investigation of the status quo of ICT-based distance learning in sub-Saharan Africa. Broad trends were derived from the multitude of sources on the topic, depicting just as many examples of programmes currently being maintained. ICT inroads in Africa are addressed; the problems to acquire and maintain these are discussed, as well as ICT's potential role in future distance learning programmes. Examples of public-private partnerships are highlighted. It is emphasised that only through these partnerships will African tertiary institutions succeed in increasing the output of their much needed graduates.

- See more at:

<http://0-www.emeraldinsight.com.library.ada.edu.az/journals.htm?issn=0264-0473&volume=21&issue=5&articleid=862027&show=abstract&sthash.14AIRWJH.dpuf>,
author = {van Brakel, Pieter A. and Chisenga, Justin},
doi = {10.1108/02640470310499867},
file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/EAD/Impact of ICT-based distance learning.pdf:pdf},
isbn = {0264047031049},
issn = {0264-0473},
journal = {The Electronic Library},
keywords = {distance learning,electronic mail,information management,internet,sub-saharan africa},
mendeley-groups = {EAD},
number = {5},
pages = {476--486},
title = {{Impact of ICT-based distance learning: the African story}},
url = {http://www.emeraldinsight.com/doi/10.1108/02640470310499867},
volume = {21},
year = {2003}
}

@article{Katz2002,

abstract = {Empirical studies that have examined psychological aspects of the use of Information and Communication Technology (ICT) have indicated that certain psychological attitudes of students towards the use of ICT are of paramount importance when evaluating the effective use of distance learning approaches to instruction and learning. Distance learning at the tertiary level, through the medium of ICT, is seemingly affected by the same psychological attitudes that are known to be related to other successful ICT applications to learning and instruction. In the present study the relationship between two distance learning ICT-based configurations were examined. The results indicate that psychological attitudes held by students differentially facilitate efficient use of distance learning approaches. Satisfaction with learning, level of control of the learning process, and study motivation for distance learning are all positively related to the students' preferences for structured distance learning, whereas independence in learning is positively connected to students' preferences for the more open Internet functionality.},

author = {Katz, Yaacov J.},

doi = {10.1046/j.0266-4909.2001.00202.x},

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file = {C:\backslash$/Users/otavi/Dropbox/Pesquisas/Tecnologia na
educacao/EAD/Attitudes affecting college students preferences for distance
learning.pdf:pdf},
isbn = {0266-4909},
issn = {02664909},
journal = {Journal of Computer Assisted Learning},
keywords = {Attitude, Conferencing, Distance, Internet, Psychology, Questionnaire, Undergradu
ate, Video},
mendeley-groups = {EAD},
number = {1},
pages = {2--9},
title = {{Attitudes affecting college students' preferences for distance learning}},
volume = {18},
year = {2002}
}

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@article{Labhart2012,
abstract = {We present a global education project in Artificial Intelligence (AI) called the
"ShanghAI Lectures": A lecture series held annually via videoconference among 15 to 20
universities around the globe. The lectures are complemented by a novel three-dimensional
collaborative virtual environment for international student teamwork, and a web-based
resource designed as a knowledge base and for community building. This paper
summarizes the lessons learned from the first edition of the ShanghAI Lectures, which may
guide future global teaching and learning projects of this kind.},
author = {Labhart, Nathan and Hasler, B{\e}atrice S. and Zbinden, Andy and Schmeil,
Andreas},
file = {C:\backslash$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Inteligencia
Artificial/The ShanghAI Lectures - Copy.pdf:pdf},
issn = {0948695X},
journal = {Journal of Universal Computer Science},
keywords = {3D Collaborative Virtual Environments, Global Teaching, Intercultural
Learning, Videoconference},
mendeley-groups = {Intelig{\e}ncia Artificial},
number = {18},
pages = {2542--2555},
title = {{The ShanghAI Lectures: A global education project on artificial intelligence}},
volume = {18},
year = {2012}
}

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@article{
doi = {10.1007/978-3-642-21869-9},
file = {C:\backslash$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Inteligencia
Artificial/Artificial Intelligence in Education - Copy.pdf:pdf},
isbn = {978-3-642-21868-2},
journal = {Journal of Computer Assisted Learning},

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keywords = {Artificial intelligence,Cognition,Learner modelling,Learning
 environment,Situated learning},
 mendeley-groups = {Intelig{^e}}ncia Artificial},
 title = {{Artificial Intelligence in Education}},
 url = {http://link.springer.com/10.1007/978-3-642-21869-9},
 volume = {6738},
 year = {2011}
 }
 @misc{Kelly1993,
 author = {Kelly, Anthony E and Sleeman, D and Gilhooly, K J},
 booktitle = {International Journal of Man-Machine Studies},
 file = {:C\$\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Inteligencia
 Artificial/AI eurísticas Matematica.pdf:pdf},
 mendeley-groups = {Intelig{^e}}ncia Artificial},
 title = {{Artificial intelligence in education: using state space search and heuristics in
 mathematics instruction}},
 year = {1993}
 }
 @article{V1986,
 author = {Yazdani, Masoud and {W. Lawler}, Robert},
 file = {:C\$\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Inteligencia
 Artificial/ARTIFICIAL INTELLIGENCE AND EDUCATION.pdf:pdf},
 journal = {Instructional Science},
 mendeley-groups = {Intelig{^e}}ncia Artificial},
 pages = {197--206},
 title = {{Artificialintelligence and education: an overview}},
 volume = {14},
 year = {1986}
 }
 @article{Albers1985,
 author = {Albers, Guenter},
 doi = {10.1016/S0167-9287(85)92849-3},
 file = {:C\$\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Inteligencia
 Artificial/Artificial Intelligence and Education 2.pdf:pdf},
 isbn = {9781586037642},
 issn = {01679287},
 journal = {Education and Computing},
 mendeley-groups = {Intelig{^e}}ncia Artificial},
 number = {4},
 pages = {275--277},
 pmid = {3118},
 title = {{Artificial intelligence and education}},
 volume = {1},
 year = {1985}
 }
 @article{JonesColbourn1985,

abstract = {Computers have been employed within the field of education for many years, often with disappointing results. However, recent and current research within the field of artificial intelligence (AI) is having a positive impact on educational applications. For example, there now exist ICAI (intelligent computer-assisted instruction) systems to teach or tutor many different subjects; several such systems are discussed herein. In addition to CAI (computer-assisted instruction) systems, we discuss the development of learning environments that are designed to facilitate student-initiated learning. A third major application is the use of expert systems to assist with educational diagnosis and assessment. During the course of our discussion of these three major application areas, we indicate where AI has already played a major role in the development of such systems and where further research is required in order to overcome current limitations.},

author = {{Jones (Colbourn)}, Marlene},

doi = {10.1016/0898-1221(85)90054-9},

file = {:C\$\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Inteligencia Artificial/APPLICATIONS OF ARTIFICIAL INTELLIGENCE - Copy.pdf:pdf},

issn = {08981221},

journal = {Computers {\&} Mathematics with Applications},

mendeley-groups = {Intelig{\^e}ncia Artificial},

pages = {517--526},

pmid = {3906696},

title = {{Applications of artificial intelligence within education}},

volume = {11},

year = {1985}

}

@article{Akçayr2017,

abstract = {This study presents a systematic review of the literature on augmented reality (AR) used in educational settings. We consider factors such as publication year, learner type (e.g., K-12, higher education, and adult), technologies in AR, and the advantages and challenges of using AR in educational settings. The full range of SSCI journals was surveyed and a total of 68 research articles were selected for analysis. The findings reveal an increase in the number of AR studies during the last four years. The most reported advantage of AR is that it promotes enhanced learning achievement. Some noted challenges imposed by AR are usability issues and frequent technical problems. We found several other challenges and numerous advantages of AR usage, which are discussed in detail. In addition, current gaps in AR research and needs in the field are identified, and suggestions are offered for future research.},

author = {Ak{\c{c}}ayır, Murat and Ak{\c{c}}ayır, G{\^o}k{\c{c}}e},

doi = {10.1016/j.edurev.2016.11.002},

file = {:C\$\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Realidade Aumentada/Advantages and challenges associated with augmented reality.pdf:pdf},

isbn = {1747-938X},

issn = {1747938X},

journal = {Educational Research Review},

keywords = {Augmented reality,Educational technology,Systematic review},
mendeley-groups = {Realidade Aumentada},
pages = {1--11},
pmid = {87626811},
title = {{Advantages and challenges associated with augmented reality for education: A systematic review of the literature}},
volume = {20},
year = {2017}
}

@article{Wojcik2016,
abstract = {The subject of this article is the use of augmented reality technology in library and information science education. The aim is to determine the scope and potential uses of augmented reality in the education of information professionals. In order to determine the scope and forms of potential use of AR technology in LIS education a two-step analysis was conducted. The first stage was the in-depth analysis of LIS training programs offered by academic centers in Poland, including 8 programs (4 bachelor degree and 4 master degree). In this way, more than 350 learning outcomes were analyzed and grouped according to the frequency of occurrence. During the second stage of the study a list of the most important learning outcomes was compared with a list of skill areas that AR technology helps to develop, in order to formulate conclusions according to the potential use of AR in LIS education. Summarizing the results of the study, it can be concluded that AR technology is a useful teaching tool which enables students to achieve improved learning outcomes in the practical skills needed by librarians, as well as the personal and social competencies relevant to labor market needs.},
author = {Wojcik, Magdalena},
doi = {10.1007/s10639-015-9399-z},
file = {C:\Users\otavi\Dropbox\Pesquisas\Tecnologia na educacao\Realidade Aumentada\Potential use of Augmented Reality in LIS education.pdf:pdf},
isbn = {1360-2357\backslash\$1573-7608},
issn = {15737608},
journal = {Education and Information Technologies},
keywords = {Augmented reality,Bologna process,LIS education,Learning environment,Training programs analysis},
mendeley-groups = {Realidade Aumentada},
number = {6},
pages = {1555--1569},
publisher = {Education and Information Technologies},
title = {{Potential use of Augmented Reality in LIS education}},
url = {http://dx.doi.org/10.1007/s10639-015-9399-z},
volume = {21},
year = {2016}
}

@article{Yilmaz2016,
abstract = {Shaping children's experience, enhancing their imagination and affecting their behaviors, toys have great importance. Recently, toys have gained a digital characteristic and many children have tended to use them. For this reason, educational magic toys (EMT)

were developed with augmented reality technology in this study. It is called as EMT because virtual objects such as story animations, 3D objects and flash animations appear on the toys. EMT has included puzzles, flash cards and match cards to teach animals, fruits, vegetables, vehicles, objects, professions, colors, numbers and shapes for average 5–6 age children in Early Childhood Education. The aim of this study is to reveal teachers' and children's opinions on EMT, to determine children's behavioral patterns and their cognitive attainment, and the relationship between them while playing EMT. Mix method was used and the sample consisted of 30 teachers and 33 children aged 5–6 in early childhood education. As data collection tools, a survey, an observation and interview form were used. This study revealed that teachers and children liked EMT activity. In addition, children interactively played with these toys but not had high cognitive attainment. From this point, we can say that these toys can be effectively used in early childhood education. However, collaborative and interactive learning with these toys should be provided. Moreover, this study will provide an important contribution, present a new educational AR application, and fill the gap in the educational technology field.},

author = {Yilmaz, Rabia M.},

doi = {10.1016/j.chb.2015.07.040},

file = {C:\backslash\$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Realidade Aumentada/Educational magic toys developed with augmented reality technology.pdf:pdf},

isbn = {0747-5632},

issn = {07475632},

journal = {Computers in Human Behavior},

mendeley-groups = {Realidade Aumentada},

pages = {240--248},

publisher = {Elsevier Ltd},

title = {{Educational magic toys developed with augmented reality technology for early childhood education}},

url = {http://linkinghub.elsevier.com/retrieve/pii/S0747563215300510},

volume = {54},

year = {2016}

}

@article{Imrattanatrai2014,

abstract = {This paper proposes a solution that uses an augmented reality technology to provide an interesting and exciting presentation of the studying materials to the learners. The proposed solution comprises of two components which are a mobile application and a web service. The mobile application is implemented on the Android platform and it applies the augmented reality technology to enrich lecture slides' viewing experience. That is lecture slides' creator can embed extra contents such as images, texts and videos onto their original lecture slides through the mobile application. When a learner views a slide with the embedded information through the proposed mobile application, he/she will be able to view these extra contents overlaying on top of the original content. This proposed application composes of three major processes including: Image Detection, Corners Detection, and Augmentation. Moreover, the instructors can manage their own contents via our website. From the experimental results, the accuracy of image detection is 85{\%}. From our satisfactory survey for using our application also shows that our application can engage

learners to study more. This new slide reading style does not only provide more information about the lesson to the learners, it may also help attracting them to study more.},
author = {Imrattanatrai, Wiradee and Hanittinan, Chonthicha and Tanachaihirunsiri, Nuthatai and Kamnoonwatana, Nawat},
doi = {10.1109/ICT-ISPC.2014.6923208},
file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Realidade Aumentada/Real-time Recognition and Augmented reality for.pdf:pdf},
isbn = {9781479955725},
journal = {Proceedings of the 2014 3rd ICT International Senior Project Conference, ICT-ISPC 2014},
keywords = {Android Application,Augmented Reality,Real-time Image Recognition},
mendeley-groups = {Realidade Aumentada},
pages = {17--20},
title = {{Real-time recognition and augmented reality for education}},
year = {2014}
}

@article{Bujak2013,
abstract = {Physical objects and virtual information are used as teaching aids in classrooms everywhere, and until recently, merging these two worlds has been difficult at best. Augmented reality offers the combination of physical and virtual, drawing on the strengths of each. We consider this technology in the realm of the mathematics classroom, and offer theoretical underpinnings for understanding the benefits and limitations of AR learning experiences. The paper presents a framework for understanding AR learning from three perspectives: physical, cognitive, and contextual. On the physical dimension, we argue that physical manipulation affords natural interactions, thus encouraging the creation of embodied representations for educational concepts. On the cognitive dimension, we discuss how spatiotemporal alignment of information through AR experiences can aid student's symbolic understanding by scaffolding the progression of learning, resulting in improved understanding of abstract concepts. Finally, on the contextual dimension, we argue that AR creates possibilities for collaborative learning around virtual content and in non-traditional environments, ultimately facilitating personally meaningful experiences. In the process of discussing these dimensions, we discuss examples from existing AR applications and provide guidelines for future AR learning experiences, while considering the pragmatic and technological concerns facing the widespread implementation of augmented reality inside and outside the classroom. {\textcopyright} 2013 Elsevier Ltd. All rights reserved.},
author = {Bujak, Keith R. and Radu, Iulian and Catrambone, Richard and MacIntyre, Blair and Zheng, Ruby and Golubski, Gary},
doi = {10.1016/j.compedu.2013.02.017},
file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Realidade Aumentada/A psychological perspective on augmented reality in the mathematics.pdf:pdf},
isbn = {0360-1315},
issn = {03601315},
journal = {Computers and Education},
keywords = {Applications in subject areas,Augmented reality,Cognition,Human-centered design,Interactive learning environments},
mendeley-groups = {Realidade Aumentada},

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pages = {536--544},
publisher = {Elsevier Ltd},
title = {{A psychological perspective on augmented reality in the mathematics classroom}},
volume = {68},
year = {2013}
}
@article{Wu2013,
abstract = {Although augmented reality (AR) has gained much research attention in recent years, the term AR was given different meanings by varying researchers. In this article, we first provide an overview of definitions, taxonomies, and technologies of AR. We argue that viewing AR as a concept rather than a type of technology would be more productive for educators, researchers, and designers. Then we identify certain features and affordances of AR systems and applications. Yet, these compelling features may not be unique to AR applications and can be found in other technological systems or learning environments (e.g., ubiquitous and mobile learning environments). The instructional approach adopted by an AR system and the alignment among technology design, instructional approach, and learning experiences may be more important. Thus, we classify three categories of instructional approaches that emphasize the "roles," "tasks," and "locations," and discuss what and how different categories of AR approaches may help students learn. While AR offers new learning opportunities, it also creates new challenges for educators. We outline technological, pedagogical, learning issues related to the implementation of AR in education. For example, students in AR environments may be cognitively overloaded by the large amount of information they encounter, the multiple technological devices they are required to use, and the complex tasks they have to complete. This article provides possible solutions for some of the challenges and suggests topics and issues for future research. ?? 2012 Elsevier Ltd. All rights reserved.},
archivePrefix = {arXiv},
arxivId = {1204.1594},
author = {Wu, Hsin Kai and Lee, Silvia Wen Yu and Chang, Hsin Yi and Liang, Jyh Chong},
doi = {10.1016/j.compedu.2012.10.024},
eprint = {1204.1594},
file = {C:\backslash$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Realidade Aumentada/Current status, opportunities and challenges of augmented reality in education.pdf:pdf},
isbn = {0360-1315},
issn = {03601315},
journal = {Computers and Education},
keywords = {Architectures for educational technology system,Virtual reality},
mendeley-groups = {Realidade Aumentada},
pages = {41--49},
pmid = {3118},
publisher = {Elsevier Ltd},
title = {{Current status, opportunities and challenges of augmented reality in education}},
url = {http://dx.doi.org/10.1016/j.compedu.2012.10.024},
volume = {62},
year = {2013}

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}

@article{Bower2013,

abstract = {Augmented Reality is poised to profoundly transform Education as we know it. The capacity to overlay rich media onto the real-world for viewing through web-enabled devices such as phones and tablet devices means that information can be made available to students at the exact time and place of need. This has the potential to reduce cognitive overload by providing students with 'perfectly situated scaffolding', as well as enable learning in a range of other ways. This paper will review uses of Augmented Reality both in mainstream society and in education, and discuss the pedagogical potentials afforded by the technology. Based on the prevalence of information delivery uses of Augmented Reality in Education, we argue the merit of having students design Augmented Reality experiences in order to develop their higher order thinking capabilities. A case study of 'learning by design' using Augmented Reality in high school Visual Art is presented, with samples of student work and their feedback indicating that the approach resulted in high levels of independent thinking, creativity and critical analysis. The paper concludes by establishing a future outlook for Augmented Reality and setting a research agenda going forward.},

author = {Bower, Matt and Howe, Cathie and McCredie, Nerida and Robinson, Austin and Grover, David},

doi = {10.1109/CICEM.2013.6820176},

file = {C:\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Realidade Aumentada/Augmented Reality in education.pdf:pdf},

isbn = {978-1-4799-3216-0},

issn = {0952-3987},

journal = {2013 IEEE 63rd Annual Conference International Council for Education Media (ICEM)},

keywords = {ar, augmented reality, design-based learning, higher order thinking, mobile, pedagogy},

mendeley-groups = {Realidade Aumentada},

number = {1},

pages = {1--11},

title = {{Augmented reality in Education {\&}\#x2014; Cases, places, and potentials}},

url =

{http://ieeexplore.ieee.org.ezproxy.ugm.ac.id/ielx7/6816615/6820127/06820176.pdf?tp={\&}arnumber=6820176{\&}isnumber=6820127{\%}5Cnhttp://ieeexplore.ieee.org.ezproxy.ugm.ac.id/xpl/articleDetails.jsp?tp={\&}arnumber=6820176{\&}queryText{\%}253Daugmented+reality{\%}5Cnhttp://iee},

volume = {51},

year = {2013}

}

@article{Davidsson2012,

abstract = {During the last 2 years we have conducted several trials exploring how augmented reality and mobile technologies can be used to support learning and teaching in science education. In particular, we present the on-going efforts that are part of the EU funded project Science Center To Go. We provide an overview of the different activities, the lessons learned and what we propose as ways to forward making the technology, mobile, affordable and in the long term - ubiquitous available. {\textcopyright} 2012 IEEE.},

author = {Davidsson, Mattias and Johansson, David and Lindwall, Katrin},
doi = {10.1109/WMUTE.2012.52},
file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Realidade Aumentada/Exploring the Use of Augmented Reality to Support Science.pdf:pdf},
isbn = {9780769546629},
journal = {Proceedings 2012 17th IEEE International Conference on Wireless, Mobile and Ubiquitous Technology in Education, WMUTE 2012},
keywords = {Augmented Reality,inquiry-based learning,mobile learning},
mendeley-groups = {Realidade Aumentada},
pages = {218--220},
title = {{Exploring the use of augmented reality to support science education in secondary schools}},
year = {2012}
}

@article{Lee2012,
abstract = {There are many different ways for people to be educated and trained with regard to specific information and skills they need. These methods include classroom lectures with textbooks, computers, handheld devices, and other electronic appliances. The choice of learning innovation is dependent on an individual's access to various technologies and the infrastructure environment of a person's surrounding. In a rapidly changing society where there is a great deal of available information and knowledge, adopting and applying information at the right time and right place is needed to main efficiency in both school and business settings. Augmented Reality (AR) is one technology that dramatically shifts the location and timing of education and training. This literature review research describes Augmented Reality (AR), how it applies to education and training, and the potential impact on the future of education. ABSTRACT FROM AUTHOR Copyright of TechTrends: Linking Research {\&} Practice to Improve Learning is the property of Springer Science {\&} Business Media B.V. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)},
author = {Lee, Kangdon},
doi = {10.1007/s11528-012-0559-3},
file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Realidade Aumentada/Augmented Reality in education and training.pdf:pdf},
isbn = {8756-3894},
issn = {87563894},
journal = {TechTrends},
keywords = {Augment Reality,Educational Technology,Training,Virtual Reality},
mendeley-groups = {Realidade Aumentada},
number = {2},
pages = {13--21},
pmid = {71283655},
title = {{Augmented Reality in Education and Training}},
volume = {56},

author = {Lee, Kangdon},
doi = {10.1007/s11528-012-0559-3},
file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Realidade Aumentada/Augmented Reality in education and training.pdf:pdf},
isbn = {8756-3894},
issn = {87563894},
journal = {TechTrends},
keywords = {Augment Reality,Educational Technology,Training,Virtual Reality},
mendeley-groups = {Realidade Aumentada},
number = {2},
pages = {13--21},
pmid = {71283655},
title = {{Augmented Reality in Education and Training}},
volume = {56},

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year = {2012}
}
@article{ElSayed2011,
abstract = {Augmented Reality (AR) is the technology of adding virtual objects to real scenes through enabling the addition of missing information in real life. As the lack of resources is a problem that can be solved through AR, this paper presents and explains the usage of AR technology we introduce Augmented Reality Student Card (ARSC) as an application of AR in the field of education. ARSC uses single static markers combined in one card for assigning different objects, while leaving the choice to the computer application for minimizing the tracking process. ARSC is designed to be a useful low cost solution for serving the education field. ARSC can represent any lesson in a 3D format that helps students to visualize different learning objects, interact with theories and deal with the information in a totally new, effective, and interactive way. ARSC can be used in offline, online and game applications with seven markers, four of them are used as a joystick game controller. One of the novelties in this paper is that experimental tests had been made for the ARTag marker set for sorting them according to their efficiency. The results of those tests were used in this research to choose the most efficient markers for ARSC, and can be used for further research. The experimental work in this paper also shows the constraints for marker creation for an AR application. As we need to work in both online and offline application, merging of toolkits and libraries has been made, as presented in this paper. ARSC was examined by a number of students of both genders with average age between 10 and 17 years and it found great acceptance among them. {\textcopyright} 2010 Elsevier Ltd. All rights reserved.},
author = {{El Sayed}, Neven A.M. and Zayed, Hala H. and Sharawy, Mohamed I.},
doi = {10.1016/j.compedu.2010.10.019},
file = {C:\backslash$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Realidade Aumentada/Augmented reality student card.pdf:pdf},
isbn = {0101355491},
issn = {03601315},
journal = {Computers and Education},
keywords = {1.3 [COMPUTER GRAPHICS]: Augmented Reality,1.3.8 [Applications]: Education application},
mendeley-groups = {Realidade Aumentada},
number = {4},
pages = {1045--1061},
publisher = {Elsevier Ltd},
title = {{ARSC: Augmented reality student card An augmented reality solution for the education field}},
url = {http://dx.doi.org/10.1016/j.compedu.2010.10.019},
volume = {56},
year = {2011}
}
@article{Han2011,
abstract = {As high performance computing (HPC) becomes a part of the scientific computing landscape, visualizing HPC has become a critical field of its own. This paper describes a visualization cluster solution developed for virtual reality education. First, LCD display, computer with NVIDIA graphic cards, 1G switch and 10G switch are used to build

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hardware platform; Secondly, Linux operation system, Rocks management software, CGLX middle software are used to display multi-media and 3D data; Finally, openSenceGraph 3D graphics engines is used to write high-performance virtual reality application. As a virtual reality education platform, some application result are also represented in the end.},

author = {Han, Xiaoying and Feng, Chen and Wei, Chen},

doi = {10.1109/ITIME.2011.6130764},

file = {C:\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Realidade Aumentada/A rocks based visualization cluster platform design and application for.pdf:pdf},

isbn = {9781612847023},

journal = {ITME 2011 - Proceedings: 2011 IEEE International Symposium on IT in Medicine and Education},

keywords = {CGLX,Rocks,Visualization cluster},

mendeley-groups = {Realidade Aumentada},

pages = {735--739},

title = {{A rocks based visualization cluster platform design and application for virtual reality education}},

volume = {1},

year = {2011}

}

@article{Mengoni2011,

abstract = {The paper explores the potentialities of virtual reality (VR) to improve the learning process of mechanical product design. It is focused on the definition of a proper experimental VR-based set-up whose performance matches mechanical design learning purposes, such as assemblability and tolerances prescription. The method consists of two main activities: VR technologies benchmarking based on sensory feedback and evaluation of how VR tools impact on learning curves. In order to quantify the performance of the technology, an experimental protocol is defined and an testing plan is set. Evaluation parameters are divided into performance and usability metrics to distinguish between the cognitive and technical aspects of the learning process. The experimental VR-based set up is tested on students in mechanical engineering through the application of the protocol. 2011 Springer-Verlag.},

author = {Mengoni, Maura and Germani, Michele and Peruzzini, Margherita},

doi = {10.1007/s12008-011-0119-7},

file = {C:\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Realidade Aumentada/Benchmarking of virtual reality performance in mechanics education.pdf:pdf},

issn = {19552513},

journal = {International Journal on Interactive Design and Manufacturing},

keywords = {Experimental protocol, Learning curve, Mechanical product design, Mechanics education, Virtual reality},

mendeley-groups = {Realidade Aumentada},

number = {2},

pages = {103--117},

title = {{Benchmarking of virtual reality performance in mechanics education}},

volume = {5},

year = {2011}

}

@article{Phan2010,
 abstract = {This study examines an application of Augmented Reality technology (AR) for Korean Cultural Traditional Buildings, specifically, the Namdaemun Gate, "National Treasure No 1" of the Republic of Korea. Unfortunately, in February 2008, the Namdaemun Gate burned down, despite the efforts of many firemen, as the main difficulty was getting the fire under control without any structural knowledge of the wooden building. Hence, with the great advances in digital technology, an application of virtual technical information to traditional buildings is needed, and the new technology of AR offers many such advantages for digital architectural design and construction fields. While AR is already being considered as new design approach for architecture, outdoor AR is another practical application that can take advantage of new wearable computer equipment (Head-mounted display also know as HMD, position and orientation sensors, and mobile computing) to superimpose virtual graphics of traditional buildings (in this case, Namdaemun Gate) in a real outdoor scene. Plus, outdoor AR also allows the user to move freely around and inside a 3D virtual construction, thereby offering important training opportunities, for example, specific structural information in the case of firemen and mission planning in the case of a real-life emergency. In this example, the proposed outdoor AR system is expected to provide important educational information on traditional wooden building for architects, archaeologists, and engineers, while also assisting firemen to protect such special buildings.},
 author = {Phan, Viet and Choo, Seung},
 doi = {10.1260/1478-0771.8.1.75},
 file = {:C\$\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Realidade Aumentada/Augmented Reality Based Education.pdf:pdf;:C\$\backslash\$:/Users/otavi/AppData/Local/Mendeley Ltd./Mendeley Desktop/Downloaded/Phan, Choo - 2010 - Augmented Reality-Based Education and Fire Protection for Traditional Korean Buildings.pdf:pdf},
 isbn = {14780771},
 issn = {14780771},
 journal = {International Journal of Architectural Computing},
 mendeley-groups = {Realidade Aumentada},
 number = {1},
 pages = {75--91},
 pmid = {51164284},
 title = {{Augmented Reality-Based Education and Fire Protection for Traditional Korean Buildings}},
 url = {http://dx.doi.org/10.1260/1478-0771.8.1.75{\%}5Cnhttp://multi-science.metapress.com/content/t434v64785364432/?genre=article{\&}id=doi:10.1260/1478-0771.8.1.75{\%}5Cnhttp://www.metapress.com/content/t434v64785364432/fulltext.pdf},
 volume = {8},
 year = {2010}
}

@article{Lopez-Rodriguez2015,
 abstract = {This work presents the design of an open educational low-cost (35 euros) modular and extend-able mobile robot based on Android and Arduino, with Local Area

Network (LAN) and Internet connection capabilities, to be used as an educational tool in labs and classrooms of information and communications technology (ICT) vocational training, or in engineering courses, as well as in e-learning or massive open online courses (MOOC) as an alternative or complementary to virtual labs. It is a first step introducing what we call "BYOR: Bring Your Own Robot" education policy equivalent to "BYOD: Bring your own devices" in computers' world.},

author = {Lopez-Rodríguez, Francisco M. and Cuesta, Federico},

doi = {10.1007/s10846-015-0227-x},

file = {C:\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Robos/Low-Cost Educational Mobile Robot Based.pdf:pdf},

isbn = {09210296 (ISSN)},

issn = {15730409},

journal = {Journal of Intelligent and Robotic Systems: Theory and Applications},

keywords = {Android,Arduino,BYOR,Distance learning,Educational robot,Robotics,Smartphone-based robots},

mendeley-groups = {Robotica},

pages = {63--76},

title = {{Andruino-A1: Low-Cost Educational Mobile Robot Based on Android and Arduino}},

year = {2015}

}

@article{Kochlan2015,

abstract = {The open hardware mobile and modular educational robotic platform Yrobot is a new open platform that has been developed at the authors' department. It features a unique combination of teaching robotics and electronics along with algorithms, artificial intelligence and hardware based programming. The original motivation was to encourage students' interest in technical fields of study, to support teaching and the selected areas of the information and communication technologies. As a modular platform, Yrobot system enables development of various interesting and special applications in form of the expansion modules. The development software, support and firmware source code as well as the full hardware designs are available under the free licenses. The design and functionality of the Yrobot mobile and modular educational robotic platform is presented. The developed system is meant to serve as an educational platform for students at the undergraduate and graduate levels.},

author = {Kochlan, Michal and Hodoň, Michal},

doi = {10.1109/RAAD.2014.7002246},

file = {C:\backslash\$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Robos/Open Hardware Modular Educational Robotic.pdf:pdf},

isbn = {9781479967988},

journal = {23rd International Conference on Robotics in Alpe-Adria-Danube Region, IEEE RAAD 2014 - Conference Proceedings},

mendeley-groups = {Robotica},

title = {{Open hardware modular educational robotic platform - Yrobot}},

year = {2015}

}

@article{Henrique2014,

author = {Henrique, Adam and Pinto, Moreira},

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file = {C:\backslash$:Users\otavi\Dropbox\Pesquisas/Tecnologia na
educacao/Robos/AdamHenriqueMoreiraPinto.pdf:pdf},
mendeley-groups = {Rob\{'o'}tica},
title = {{Um sistema de reconhecimento de objetos incorporado a um rob\{'^o'} humanoide
com aplica\{c\}\{'~a'}o na educa\{c\}\{'~a'}o}},
year = {2014}
}

@article{Aroca2013,
abstract = {This paper introduces the use of a flexible and affordable educational robot
specifically developed for the practical experimentation inherent to technological disciplines.
The robot has been designed to be reconfigurable and extendible, serving as an
experimental platform across several undergraduate courses. As most students have a
mobile cell phone, this was used as the main control computer for the so-called CellBot, thus
avoiding any need to deal with the details of microcontrollers or other embedded computing
devices. Assessment results are also presented, based on a pre- and post-survey of student
opinion administered to 204 science and engineering students from several universities.
Among the conclusions are that 83\{\%} of the students prefer to use these low-cost robots as
tools to improve their learning of the theory in several disciplines, and 71\{\%} of the students
stated that they prefer to have their own robot to experiment with, instead of using a didactic
kit loaned to them by the university.},
author = {Aroca, Rafael V. and Gomes, Rafael B. and Tavares, Dalton M. and Souza,
Anderson Abner S. and Burlamaqui, Aquiles M.F. and Caurin, Glauco A.P. and
Gon\{c\}alves, Luiz M.G.},
doi = {10.1109/TE.2012.2214782},
file = {C:\backslash$:Users\otavi\Dropbox\Pesquisas/Tecnologia na
educacao/Robos/Increasing students' interest with low-cost cellbots..pdf:pdf},
isbn = {0018-9359},
issn = {00189359},
journal = {IEEE Transactions on Education},
keywords = {Audio interface,CellBots,engineering education,low-cost robotics,robotics
education},
mendeley-groups = {Rob\{'o'}tica},
number = {1},
pages = {3--8},
title = {{Increasing students' interest with low-cost cellbots}},
volume = {56},
year = {2013}
}

@article{Krasnansky2013,
abstract = {This work addresses design and construction issues of a laboratory robotic arm
for educational purposes. First of all, the robotic arm performance analysis has been
accomplished using Matlab / Simulink / SimMechanics. The obtained knowledge has been
utilized to develop the suitable algorithms for analyzing the robotic arm kinematics. Once the
SimMechanics model is successfully determined, a real-time xPC target system is used in
order to connect the real laboratory robotic arm with the corresponding Matlab / Simulink
block diagram. It is important to remark that the developed robotic arm is a convenient tool

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for learning robotics at any favorable technical university laboratory. On the other hand, the manipulator has six degrees of freedom. Three degrees of freedom correspond to the robotic arm and the rest belongs to the gripper. Moreover, the necessary electronic modules have been developed in order to allow a successful standard communication with the available laboratory devices.},

author = {Krasnansky, Pavol and Toth, Filip and Huertas, Vladimir Villaverde and Rohal'-Ilkiv, Boris},

doi = {10.1109/PC.2013.6581462},

file = {:C\$\\backslash\$:Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Robos/Basic Laboratory Experiments with an Educational Robotic Arm.pdf:pdf},

isbn = {9781479909278},

journal = {Proceedings of the 2013 International Conference on Process Control, PC 2013},

keywords = {SimMechanics,basic kinematics,electronics,mechanics,real-time interface,robotic arm},

mendeley-groups = {Rob\\{o\\}tica},

pages = {510--515},

title = {{Basic laboratory experiments with an educational robotic arm}},

year = {2013}

}

@article{Dhaouadi2011,

abstract = {Electric drives and motion-control systems represent an engineering discipline that has rapidly developed over the last few decades. Today, high-performance motor drive systems have become the preferred choice in many industrial applications, and there is a strong interest to develop new control tools to further enhance their performance and intelligence. Motor drives are encountered in various industrial applications, such as rolling mill drives, traction systems, and robotics, covering the general field of motion control and mechatronics. \\textcopyright 2011 IEEE.},

author = {Dhaouadi, Rached and Sleiman, Mohamad A.},

doi = {10.1109/MIE.2011.943024},

file = {:C\$\\backslash\$:Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Robos/Development of a Modular Mobile Robot Platform.pdf:pdf},

issn = {19324529},

journal = {IEEE Industrial Electronics Magazine},

mendeley-groups = {Rob\\{o\\}tica},

number = {4},

pages = {35--45},

title = {{Development of a modular mobile robot platform: Applications in motion-control education}},

volume = {5},

year = {2011}

}

@article{Kato2010,

abstract = {We have proposed a group exercise for beginners using LEGO Mindstorms robot kit. It is pre-education for introductory programming lesson. The educational purpose is to promote problem solving skill by control programming. It also aims to keep learning motivation during group collaboration works. We summarize some educational practices for

college freshmen and high school students. We construct communication support system LegoWiki based on PukiWiki. It helps to raise group activity with strategy discussion and progress report. We offer some plug-in tools for friendly user-interface. Moreover, we discuss some project support functions about planning by road map and task control by ticket.},

author = {Kato, So and Tominaga, Hiroyuki},

doi = {10.1109/ITHET.2010.5480081},

file = {C:\backslash\$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Robos/A Style and Tool for Group Exercise of Introductory Programming.pdf:pdf},

isbn = {9781424457922},

journal = {2010 9th International Conference on Information Technology Based Higher Education and Training, ITHET 2010},

mendeley-groups = {Rob\{'o'}tica},

pages = {259--267},

title = {{A style and tool for group exercise of introductory programming with LEGO robot control as pre-education event}},

year = {2010}

}

@article{Tekerek2009,

abstract = {The aim of the robotic education is to make the students know the elements of robot and to enhance their abilities on planning applications by using the robot applications and more for experiencing the existing mechanic construction. In order to studying according to a certain curriculum, they need laboratories which they can enhance them befitting to their future settings. It's certain that practices of the computer take place as a collateral factor in every field of education. Practices of computer hold a place as an access and control factors. In this study, the current structure of the robotic education is accentuated, and XR3 is prepared according to experimental robot as an educational material. 2D simulation is improved which has the capacity of visualization the movement with robot synchronously and provides observing the movements of robot in advance or the opportunity of watching it visually without the need of robot's move. Rhino XR3 Robot and Mark 3 Controller which is in the constitution of Flexible Manufacturing Systems' laboratory of Gazi University Engineering and Architecture Faculty were used for this application. Delphi 6 Personal Edition Compiler was also used for the development period of software. {\textcopyright} 2009.},

author = {Tekerek, Mehmet},

doi = {10.1016/j.sbspro.2009.01.380},

file = {C:\backslash\$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Robos/A human robot interaction application for robotic education.pdf:pdf},

isbn = {18770428},

issn = {18770428},

journal = {Procedia - Social and Behavioral Sciences},

keywords = {Defining Momentary Situation, Human Robot Interaction, Robotic Education},

mendeley-groups = {Rob\{'o'}tica},

number = {1},

pages = {2164--2169},

title = {{A human robot interaction application for robotic education}},

url = {http://dx.doi.org/10.1016/j.sbspro.2009.01.380},

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volume = {1},
year = {2009}
}
@article{Xuemei2008,
author = {Xuemei, Li and Gang, Xu},
doi = {10.1109/CCCM.2008.384},
file = {:C$\backslash$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na
educacao/Robos/Interdisciplinary Innovative Education Based on Modular Robot
Platform.pdf:pdf},
isbn = {978-0-7695-3290-5},
journal = {2008 ISECS International Colloquium on Computing, Communication, Control,
and Management},
mendeley-groups = {Rob\{'o\}tica},
pages = {66--69},
title = {{Interdisciplinary Innovative Education Based on Modular Robot Platform}},
url = {http://ieeexplore.ieee.org/lpdocs/epic03/wrapper.htm?arnumber=4609643},
year = {2008}
}

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@article{Diergarten2017,
abstract = {Within the extensive literature on the role of educational media in children's
learning and the factors influencing that learning, the possible impact of media literacy
remains unexamined. The present study examines the influence of media literacy on
learning from television and hypermedia environments. In a sample of 150 children with a
mean age of 5.33, a computer-based test was used to assess media literacy, and
recognition and inference questions were used to measure learning. The influence of
intelligence, media usage, and socioeconomic status as independent variables was also
assessed. Hierarchical regression analyses showed that media literacy was a significant
predictor of learning from media, even when controlling for other relevant factors such as
intelligence.},
author = {Diergarten, Anna Katharina and M\{'o\}ckel, Thomas and Nieding, Gerhild and
Ohler, Peter},
doi = {10.1016/j.appdev.2016.11.007},
file = {:C$\backslash$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software
Educacional/The impact of media literacy on children's learning from films and
hypermedia.pdf:pdf},
issn = {01933973},
journal = {Journal of Applied Developmental Psychology},
keywords = {Children,Educational software,Educational
television,Hypermedia,Learning,Media literacy},
mendeley-groups = {Software Educacional},
pages = {33--41},
publisher = {Elsevier Inc.},
title = {{The impact of media literacy on children's learning from films and hypermedia}},
url = {http://dx.doi.org/10.1016/j.appdev.2016.11.007},
volume = {48},

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year = {2017}
}
@article{Karolcik2015,
abstract = {Despite the fact that digital technologies are more and more used in the learning
and education process, there is still lack of professional evaluation tools capable of
assessing the quality of used digital teaching aids in a comprehensive and objective manner.
Construction of the Comprehensive Evaluation of Electronic Learning Tools and Educational
Software (CEELTES) tool was preceded by several surveys and knowledge obtained in the
course of creation of digital learning and teaching aids and implementation thereof in the
teaching process. The evaluation tool as such consists of sets (catalogues) of criteria divided
into four separately assessed areas - the area of technical, technological and user attributes;
the area of criteria evaluating the content, operation, information structuring and processing;
the area of criteria evaluating the information processing in terms of learning, recognition,
and education needs; and, finally, the area of criteria evaluating the psychological and
pedagogical aspects of a digital product. The specified areas are assessed independently,
separately, by a specialist in the given science discipline. The final evaluation of the
assessed digital product objectifies (quantifies) the overall rate of appropriateness of
inclusion of a particular digital teaching aid in the teaching process.},
author = {Karolcik, S and Cipkova, E and Hrusecky, R and Veselsky, M},
doi = {10.15388/infedu.2015.14},
file = {C:\backslash$:Users\otavi\Dropbox\Pesquisas\Tecnologia na educacao\Software
Educatcional/The Comprehensive Evaluation of Electronic Learning Tools and Educational
Software (CEELTES).pdf:pdf},
isbn = {1648-5831},
issn = {23358971},
journal = {Informatics in Education},
keywords = {educational software,electronic learning tools,evaluation},
mendeley-groups = {Software Educacional},
number = {2},
pages = {243--264},
title = {{The Comprehensive Evaluation of Electronic Learning Tools and Educational
Software (CEELTES)}},
volume = {14},
year = {2015}
}
@article{Klock2015,
abstract = {A gamifica{\c{c}}{\~{a}}o {\^{}e} uma forma de incluir elementos de jogos em
diversas aplica{\c{c}}{\~{o}}es e est{\^{}a} se tornando popular em v{\^{}a}rios contextos. O
objetivo desse artigo {\^{}e} verificar na literatura, atrav{\^{}s} de um mapeamento
sistem{\^{}a}tico, se os alunos com diferentes caracter{\^{}i}sticas reagem de forma diferente
aos elementos de jogos da gamifica{\c{c}}{\~{a}}o. Foram definidas tr{\^{}s} quest{\~{o}}es
de pesquisas e, a partir delas, um argumento de busca foi utilizado em sete mecanismos de
busca acad{\^{}m}ica. Foram encontrados 1355 artigos e, ap{\^{}o}s os crit{\^{}e}rios de
inclus{\~{a}}o e exclus{\~{a}}o, 7 artigos foram analisados. A partir deles, {\^{}e} poss{\^{}i}vel
identificar que algumas caracter{\^{}i}sticas (idade, g{\^{}e}nero, motiva{\c{c}}{\~{o}}es, tipos

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de jogadores) podem influenciar na gamificação de um ambiente virtual de aprendizagem.},

author = {Klock, Ana Carolina Tom{\e} and Gasparini, Isabela and Kemczinski, Avani and Hounsell, Marcelo and Isotani, Seiji},

doi = {10.5753/cbie.sbie.2015.539},

file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas\Tecnologia na educacao\Software Educacional\5310-7007-1-PB.pdf},

issn = {2316-6533},

journal = {Anais do XXVI Simp{\o}sio Brasileiro de Inform{\a}tica na Educa{\c{c}}{\~{a}}o},

mendeley-groups = {Software Educacional},

number = {Sbie},

pages = {539},

title = {{One man's trash is another man's treasure: um mapeamento sistem{\a}tico sobre as caracter{\i}sticas individuais na gamifica{\c{c}}{\~{a}}o de ambientes virtuais de aprendizagem}},

url = {http://br-ie.org/pub/index.php/sbie/article/view/5310},

year = {2015}

@article{Scharnaglsusanne.scharnagl@znl-ulm.de2014,

abstract = {This study analyses the effectiveness of an educational web-based software package for teaching mathematics in schools. In all, 864 sixth graders and their teachers took part in the controlled study. Students learned the addition and subtraction of fractions with (intervention group; n = 469) or without (control group; n = 395) the support of the educational software. Compared to the controls, students who used the software showed better results in the post-test. Gains were dose dependent and particularly marked in high-ability students and students with lower scores of math anxiety. [ABSTRACT FROM AUTHOR]},

author = {Scharnagl susanne.scharnagl@znl-ulm.de, Susanne1 and Evanschitzky, Petra2 and Streb, Judith3 and Spitzer, Manfred4 and Hille, Katrin5},

doi = {10.5038/1936-4660.7.1.4},

file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas\Tecnologia na educacao\Software Educacional\Sixth Graders Benefit from Educational Software when Learning about Fractions.pdf},

issn = {19364660},

journal = {Numeracy: Advancing Education in Quantitative Literacy},

keywords = {Computer assisted instruction,Computers in education,Education -- Software,Educational technology,Mathematics},

mendeley-groups = {Software Educacional},

number = {1},

pages = {1--14},

title = {{Sixth Graders Benefit from Educational Software when Learning about Fractions: A Controlled Classroom study.}},

url = {http://10.0.19.174/1936-4660.7.1.4{\%}5Cnhttp://login.ezproxy.lib.umn.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true{\&}AuthType=ip,uid{\&}db=eue{\&}AN=94899049{\&}site=ehost-live},


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volume = {7},
year = {2014}
}
@article{Goldin2014,
abstract = {Executive functions (EF) in children can be trained, but it remains unknown whether training-related benefits elicit far transfer to real-life situations. Here, we investigate whether a set of computerized games might yield near and far transfer on an experimental and an active control group of low-SES otherwise typically developing 6-y-olds in a 3-month pretest–training–posttest design that was ecologically deployed (at school). The intervention elicits transfer to some (but not all) facets of executive function. These changes cascade to real-world measures of school performance. The intervention equalizes academic outcomes across children who regularly attend school and those who do not because of social and familiar circumstances.},
author = {Goldin, A. P. and Hermida, M. J. and Shalom, D. E. and {Elias Costa}, M. and Lopez-Rosenfeld, M. and Segretin, M. S. and Fernandez-Slezak, D. and Lipina, S. J. and Sigman, M.},
doi = {10.1073/pnas.1320217111},
file = {C:\backslash$:Users\otavi\Dropbox\Pesquisas\Tecnologia na educacao\Software Educacional\Far transfer to language and math of a short software-based gaming intervention.pdf:pdf},
isbn = {1091-6490 (Electronic) 0027-8424 (Linking)},
issn = {0027-8424},
journal = {Proceedings of the National Academy of Sciences},
mendeley-groups = {Software Educacional},
number = {17},
pages = {6443--6448},
pmid = {24711403},
title = {{Far transfer to language and math of a short software-based gaming intervention}},
url = {http://www.pnas.org/cgi/doi/10.1073/pnas.1320217111},
volume = {111},
year = {2014}
}

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@article{Borges2013,
abstract = {There is a growing interest in gamification as well as its applications and implications in the field of Education. Despite this increasing interest, there are no studies on the types of research being published in the area or studies covering what are the most investigated topics. As a first step towards bridging this gap, we carried out a systematic mapping to synthesize an overview of the area. Three hundred and fifty-seven studies related to gamification were analyzed. Among them 48 were related to education and only 26 met the criteria for inclusion and exclusion of articles defined in this work. These 26 studies were selected and categorized according to their contribution. As a result, a chart of the area was developed and the most investigated topics were identified indicating that most studies focus on investigating how gamification can be used to motivate students, improve their skills, and maximize learning},
author = {Borges, Simone De S. and Reis, Helena M. and Durelli, Vinicius H. S. and Bittencourt, Ig I. and Jaques, Patricia A. and Isotani, Seiji},

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doi = {10.5753/CBIE.SBIE.2013.234},
file = {C:\backslash$.Users\otavi\Dropbox\Pesquisas\Tecnologia na educacao\Software
Educacional\2501-4198-1-SM.pdf:pdf},
isbn = {2316-6533},
issn = {2316-6533},
journal = {XXIV Simp{\'o}sio Brasileiro de Inform{\'a}tica na Educa{\'c}{\'o} (SBIE
2013)},
mendeley-groups = {Software Educacional},
number = {Cbie},
pages = {234--243},
title = {{Gamifica{\'c}{\'o} Aplicada {\'a} Educa{\'c}{\'o}: Um Mapeamento
Sistem{\'a}tico}},
url = {http://www.br-ie.org/pub/index.php/sbie/article/view/2501},
year = {2013}
}

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@article{Abreu2012,
abstract = {Apesar da ampla difus{\'o}, desenvolvimento e aplica{\'c}{\'o} de
software de suporte {\'a} educa{\'c}{\'o} presencial e {\'a} dist{\'a}ncia na
ind{\'u}stria e na academia, pesquisas ainda s{\'o} necess{\'a}rias para investigar as
tecnologias que auxiliam especificamente o desenvolvimento de software educativo. Este
trabalho apresenta um estudo de mapeamento sistem{\'a}tico para investigar quais tipos
de tecnologias v{\'e}m sendo utilizadas para auxiliar o desenvolvimento de software
educativo. O resultado deste trabalho gera a fundamenta{\'c}{\'o} t{\'e}cnica
pedag{\'o}gica para, em um passo seguinte, o desenvolvimento ou aprimoramento de uma
metodologia de desenvolvimento de software educacional.},
author = {Abreu, Fl{\'a}vio and Almeida, Adauto and Barreiros, Emanuel and Saraiva,
Juliana},
doi = {10.5753/CBIE.SBIE.2012.%P},
file = {C:\backslash$.Users\otavi\Dropbox\Pesquisas\Tecnologia na educacao\Software
Educacional\1740-2706-1-SM.pdf:pdf},
isbn = {2316-6533},
journal = {Anais do Simp{\'o}sio Brasileiro de Inform{\'a}tica na Educa{\'c}{\'o}},
mendeley-groups = {Software Educacional},
number = {Sbie},
pages = {26--30},
title = {{M{\'e}todos , T{\'e}cnicas e Ferramentas para o Desenvolvimento de Software
Educacional : Um Mapeamento Sistem{\'a}tico .}},
year = {2012}
}

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@article{Lee2011,
abstract = {This study investigates whether a visual programming environment called Etoys
could enable teachers to create software applications meeting their own instructional needs.
Twenty-four teachers who participated in the study successfully developed their own
educational computer programs in the educational technology course employing cognitive
apprenticeship and pair programming approaches as the primary instructional strategies.
Two educational software programs created by the participating teachers were described in

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order to explain what they were trying to do using Etoys and how they accomplished their goals. The results of an anonymous survey evaluating the difficulty of and the attitude toward learning Etoys indicate that teachers enjoyed learning Etoys and would like to continue to use it in the future although they found it was slightly more difficult, compared to their self-evaluated computer skill. The strengths and weaknesses of Etoys, the difficult computer programming concepts, and the educational implications of Etoys programming were also discussed. {\textcopyright} 2010 Elsevier Ltd. All rights reserved.},

author = {Lee, Young Jin},

doi = {10.1016/j.compedu.2010.09.018},

file = {C:\backslash\$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software Educacional/Empowering teachers to create educational software.pdf},

isbn = {0360-1315},

issn = {03601315},

journal = {Computers and Education},

keywords = {Interactive learning environment,Media in education,Programming and programming languages,Teaching/learning strategies},

mendeley-groups = {Software Educacional},

number = {2},

pages = {527--538},

pmid = {55056989},

publisher = {Elsevier Ltd},

title = {{Empowering teachers to create educational software: A constructivist approach utilizing Etoys, pair programming and cognitive apprenticeship}},

url = {http://dx.doi.org/10.1016/j.compedu.2010.09.018},

volume = {56},

year = {2011}

}

@article{Triantafyllakos2011,

abstract = {In this paper, we present a framework for the development of collaborative design games that can be employed in participatory design sessions with students for the design of educational applications. The framework is inspired by idea generation theory and the design games literature, and guides the development of board games which, through the use of adequate stimuli, rules and props, facilitate students in extracting and expressing their needs, desires and prospects regarding future educational software. To evaluate the proposed framework three studies were conducted. The first study aimed at the design of a web learning platform with the participation of 62 undergraduate higher education students in 13 design sessions; in the second study, a structured design approach was employed (12 sessions, 54 students) with the same design objective for comparison reasons; in the third study, the framework was deployed for the design of an electronic assessment application so as to examine its applicability in different learning domains (8 design sessions, 28 students). Students were very positive regarding both their participation and experience with the design games, and the needs elicited. The games favored a quick, broad exploration of the design space and facilitated the elicitation of numerous diverse needs and ideas, almost twice as many as produced by the structured approach. They also facilitated the creation of an informal atmosphere and limited the effects of common social influences on idea generation, such as social loafing, evaluation apprehension and production blocking. The three studies

indicated that the proposed framework may simplify the development and employment of effective and efficient participatory design sessions in educational settings. ?? 2010 Elsevier Ltd. All rights reserved.},

author = {Triantafyllakos, George and Palaigeorgiou, George and Tsoukalas, Ioannis A.},

doi = {10.1016/j.compedu.2010.08.002},

file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Software Educacional/Designing educational software with students through collaborative design games.pdf},

isbn = {0360-1315},

issn = {03601315},

journal = {Computers and Education},

keywords = {Collaborative educational software design,Design games,Idea generation,Participatory design,Student-centred design},

mendeley-groups = {Software Educacional},

number = {1},

pages = {227--242},

pmid = {7618599},

publisher = {Elsevier Ltd},

title = {{Designing educational software with students through collaborative design games: The We!Design{\&}Play framework}},

url = {http://dx.doi.org/10.1016/j.compedu.2010.08.002},

volume = {56},

year = {2011}

}

@article{Paiva2010,

author = {Paiva, Jo{\~{a}}o C. and Costa, Luiza A.},

file = {C:\backslash\$:Users\otavi\Dropbox\Pesquisas/Tecnologia na educacao/Software Educacional/Exploration Guides as a Strategy To Improve the Effectiveness of Educational Software in Chemistry.pdf},

journal = {Journal of Chemical Education},

mendeley-groups = {Software Educacional},

number = {6},

pages = {589--591},

title = {{Exploration Guides as a Strategy To Improve the Effectiveness of Educational Software in Chemistry}},

volume = {87},

year = {2010}

}

@article{Ruthven2008,

abstract = {The idea of 'interpretative flexibility' underpins new approaches to studying technological artefacts and curricular resources in use. This paper opens by reviewing - in this light - the evolving design of dynamic geometry, its pioneering use within classroom projects, and early sketches of its mainstream use in ordinary classrooms. After examining curricular context and its instrumental dimension, the paper then reports a study of teacher constructions of dynamic geometry in classroom practice, conducted in professionally well-regarded mathematics departments in English secondary schools. From departmental

focus-group interviews, four teacher-nominated examples of successful practice were selected for study in depth through lesson observation and post-lesson interview. Iterative thematic analysis was employed, first to establish a narrative outline of each case, and then the ideas and issues salient across cases. The study illustrates the interpretative flexibility surrounding the emergent use of dynamic geometry. It found important differences in practical elaboration of the widespread idea of employing dynamic geometry to support guided discovery. The process of evaluating the costs and benefits of student software use was influenced by the extent to which such use was seen as providing experience of a mathematical reference model, and more fundamentally as promoting mathematically disciplined interaction. Approaches to handling apparent mathematical anomalies of software operation depended on whether these were seen as providing opportunities to develop students' mathematical understanding, in line with a more fundamental pedagogical orientation towards supporting learning through analysis of mathematical discrepancies. Such variation was associated with differences in positioning dynamic geometry in relation to curricular norms and in privileging a mathematical register for framing figural properties. Across all cases, however, incorporating dynamic manipulation into mathematical discourse moved implicitly beyond established norms when dragging was used to focus attention on continuous dynamic variation, rather than being treated as an efficient means of generating multiple static figures. {textcopyright} 2007 Elsevier Ltd. All rights reserved.},

author = {Ruthven, Kenneth and Hennessy, Sara and Deaney, Rosemary},

doi = {10.1016/j.compedu.2007.05.013},

file = {C:\backslash\$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software Educacional/Constructions of dynamic geometry.pdf:pdf},

isbn = {0360-1315},

issn = {03601315},

journal = {Computers and Education},

keywords = {Applications in subject areas, Curriculum materials, Dynamic geometry, Educational software, Pedagogical issues, School mathematics, Secondary education, Teacher thinking, Teaching practices, Technology integration},

mendeley-groups = {Software Educacional},

number = {1},

pages = {297--317},

title = {{Constructions of dynamic geometry: A study of the interpretative flexibility of educational software in classroom practice}},

volume = {51},

year = {2008}

}

@article{,

file = {C:\backslash\$/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software Educacional/Mighty Math Cosmic Geometry.pdf:pdf},

journal = {School Library Journal},

keywords = {150 terms for finding, accessed, articles can also be, by title and

author, fast, feature has a list, of, popular topics, quickly, there are options},

mendeley-groups = {Software Educacional},

number = {July},

pages = {4--6},

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title = {{MIGHTY MATH COSMIC GEOMETRY}},
year = {1997}
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@article{,
file = {:C$\backslash$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software
Educacional/Interactive Math Journey.pdf:pdf},
journal = {School Library Journal},
mendeley-groups = {Software Educacional},
title = {{Interactive Math Journey}},
year = {1997}
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@article{,
file = {:C$\backslash$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software
Educacional/Sunnybuddy Math Playhouse.pdf:pdf},
journal = {School Library Journal},
mendeley-groups = {Software Educacional},
title = {{Sunnybuddy Math Playhouse}},
year = {1997}
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@article{,
file = {:C$\backslash$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software
Educacional/Millie's math house.pdf:pdf},
journal = {Computer Software Review},
mendeley-groups = {Software Educacional},
title = {{MILLIE'S MATH HOUSE}},
year = {1992}
}
@article{,
file = {:C$\backslash$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software
Educacional/Math Word Problems for Grades 4-6.pdf:pdf},
journal = {Computer Software Review},
mendeley-groups = {Software Educacional},
title = {{MATH WORD PROBLEMS FOR GRADES 4-6}},
year = {1991}
}
@article{,
file = {:C$\backslash$:/Users/otavi/Dropbox/Pesquisas/Tecnologia na educacao/Software
Educacional/Hands-on Math.pdf:pdf},
journal = {Computer Software Review},
mendeley-groups = {Software Educacional},
title = {{HANDS-ON MATH}},
volume = {2},
year = {1988}
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