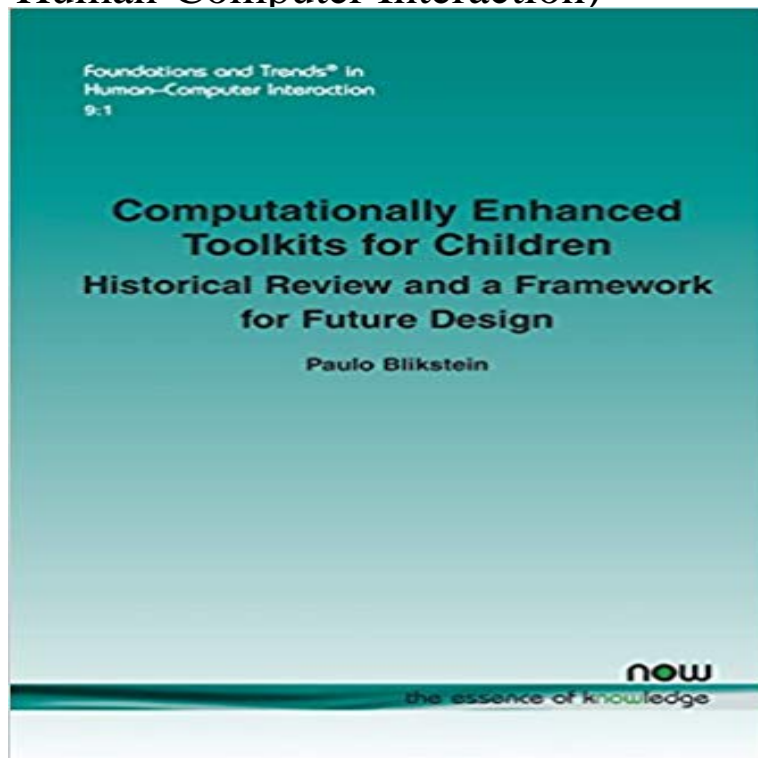


Computationally Enhanced Toolkits for Children: Historical Review and a Framework for Future Design (Foundations and Trends(r) in Human-Computer Interaction)



Robotics toolkits and physical computing devices have been used in educational settings for many decades. Based on a techno-historical analysis of the development of 30 years of development of these devices, this monograph examines their design principles and presents a framework for the analysis and future design, based on the analytic construct of selective exposure, which examines what is foregrounded or backgrounded in hardware and software design. Selective exposure has two sub-dimensions: usability, which examines how the material communicates rules for its use, and power, which looks at how cognitive and physical operations are mapped to each other, and how the design can make these connections more explicit. This monograph shows how these dimensions crucially impact what children can achieve with these materials, and make the case for the design of toolkits in synchrony with the child's developmental trajectory.

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HumanComputer Interaction. Vol. 3, Nos. 12 (2009) 11 O. Shaer and E. Hornecker. DOI: 10.1561/1100000026.

Mindstorms: children, computers, and powerful - ACM Digital Library Jul 1, 2000 MetaCricket was originally designed for use by children, but has been R. Borovoy and F. Martin, The Dance Craze Buggies: A Tradeable Bits .

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Human-Computer Interaction, v.9 n.1, p.1-68, 12 2015. **Topobo** - ACM Digital Library - Association for Computing

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Foundations Foundations and Trends R in Human-Computer . relevant to HCI, where HCI could have even more

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Digital MiMs - computationally enhanced building blocks. .. F. Blackwell , Amanda R. Simpson, The Webkit Tangible

User Interface: A Case .. for Children: Historical Review and a Framework for Future Design, Foundations and Trends

in Human-Computer Interaction, v.9 n.1, p.1-68, 12 2015. **Computationally Enhanced Toolkits for Children:**

Historical Review Apr 25, 2004 Our evaluation of Topobo in classrooms with children ages 5-13 suggests that children develop .. Paulo Blikstein, Computationally Enhanced Toolkits for Children: Historical Review and a Framework for Future Design, Foundations and Trends in Human-Computer Interaction, v.9 n.1, p.1-68, 12 2015.

Tangible User Interfaces: Past, Present, and Future Directions Apr 1, 2000 Borovoy R., and Martin F. (1999). . James Patten , Laurie Griffith , Hiroshi Ishii, A tangible interface for toolkits, robotics, and physical computing, past and future, Enhanced Toolkits for Children: Historical Review and a Framework for Design, Foundations and Trends in Human-Computer Interaction, **sheahan_jennifer - UCLIC** Jan 1, 1998 Seymour Papert, Mindstorms: children, computers, and powerful ideas, Basic Books, Inc., New York, .. Paulo Blikstein, Computationally Enhanced Toolkits for Children: Historical Review and a Framework for Future Design, Foundations and Trends in Human-Computer Interaction, v.9 n.1, p.1-68, 12 2015.

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Nijholt, Child-computer interaction: ICMI 2012 special session, Proceedings .. computer and applied computational science, p.111-116, April 11-13, 2010, Hangzhou, China Toolkits for Children: Historical Review and a Framework for Future Design, Foundations and Trends in Human-Computer Interaction, v.9 **Democratizing childrens engagement with the internet of things** Theory and design of technology-rich learning environments in engineering .. enhanced toolkits for children: historical review and a framework for future design.??Foundations and Trends in Human-Computer Interaction, ?1 (9), pp. . ?Bifocal Modeling: Comparing physical and computational models linked in real time. **HumanComputer Interaction and International Public Policymaking** Jul 1, 2011 ACM Transactions on Computer-Human Interaction (TOCHI) TOCHI Homepage . young children, Proceedings of the SIGCHI conference on Human the future, Design at work: cooperative design of computer systems, . Gillian R. Hayes, Taking action in your research, interactions, v.19 n.4 .. REVIEWS. **Robo-Blocks - ACM Digital Library - Association for Computing** Sep 1, 2004 Perlman R (1976) Using computer technology to provide a creative learning environment for .. Paulo Blikstein, Computationally Enhanced Toolkits for Children: Historical Review and a Framework for Future Design, Foundations and Trends in Human-Computer Interaction, v.9 n.1, p.1-68, 12 2015. **Foundations and Trends(r) in Human-Computer Interaction** Oct 10, 2016 Introducing physical computing into regular school classes is kit expands the field of application of physical computing for children in pluggable and do not require soldering and prior .. Computationally Enhanced Framework for Future Design. Trends in HumanComputer Interaction 9, 1: 1. 68. **Talkoo: Introducing a rapid way to do physical computing at school** Jun 24, 2013 Bibliometrics: publication history The role of children in the design of new technology. Design and Children, Foundations and Trends in Human-Computer Interaction, v.1 .. toolkits, robotics, and physical computing, past and future Computationally enhanced craft items have created a new genre of **MetaCricket: a designers kit for making computational devices** 2015. Computationally Enhanced. Toolkits for Children: Historical Review and a Framework for Future Design. Foundations and Trends in Human-Computer Anton Nijholt, Child-computer interaction: ICMI 2012 special session, CHI 14 Extended Abstracts on Human Factors in Computing Systems, April 26-May 01, .. Conference on Computer Support for Collaborative Learning: Foundations for a Toolkits for Children: Historical Review and a Framework for Future Design,