Call for Papers
International Conference on Intelligent Tutoring Systems (ITS) 2014 Workshop: ***Pedagogy That Makes A Difference: Exploring Domain-Independent Principles across Instructional Management Research within the ITS Community***

June 6th, University of Hawaii, Honolulu

Scope:
The purpose of this workshop is to examine current research within the ITS community focused on instructional management within educational technology, and to conceptualize its application in a domain-independent authoring environment, such as the Generalized Intelligent Framework for Tutoring (GIFT). The goal of this topic is to recognize the various factors associated with instructional management in ITSs, the types of strategies being applied in today's use cases, and current trends being researched by the field. This topic is of particular interest to the open-community of researchers currently involved in the development of GIFT, which provides a standardized environment to author and deliver adaptive functions in computer-based learning environments (Sottilare, Brawner, Goldberg, & Holden, 2013). For GIFT to be fully embraced by the ITS community, the architecture must be flexible enough to accommodate varying pedagogical strategies deemed useful by the field. With that said, this is a critical time in GIFT's development, as standards and processes are still being defined. As such, this workshop provides a forum for the ITS community to influence future development of GIFT by defining functions and processes they would like to see supported.

The factors of interest include the types of pedagogical decisions a developer faces when creating a system (i.e., macro- and micro-adaptive strategies), the variables and modeling techniques used to trigger a defined strategy (i.e., for example production rules and Markov-decision processes, etc.), and the requirements for its implementation within a specific learning context and environment (Goldberg et al., 2012; Mathews, 2012; Wang-Costello, Goldberg, Tarr, Cintron, & Jiang, 2013). In terms of instructional management mechanisms available in GIFT, there are a number of factors to consider. These include, but are not limited to curriculum sequencing, timing and specificity of guidance functions, preventing system gaming behaviors, open student modeling techniques, using worked examples, learning through tutorial dialogs, learning by teaching, etc. (Mathews, 2012; Baker et al., 2013; Shute & Zapata-Rivera, 2007). This event provides interacting participants an opportunity to explicitly define desired functions they would like the GIFT authoring environment to support by conceptualizing their application in a domain-independent context.

Topics of Interest:

(1) Current research looking into instructional strategies and their effect on aiding learners in developing deep conceptual understanding of a topic/procedure. These papers are intended to focus directly on cognitive and metacognitive strategies, and the characteristics associated with their implementation.

(2) Current research looking into instructional strategies and their effect on aiding learners in mitigating emotional/affective states found to negatively affect learning outcomes (i.e., boredom,

frustration, fatigue, etc.). This theme will also seek papers describing current research focused on instructional strategies intended to promote emotional/affective states found to positively affect learning outcomes (i.e., delight, surprise, engagement, flow, etc.). These papers are to describe strategies of interest and the characteristics associated with their implementation.

(3) Pedagogical implications associated with recent advancements in mobile technology and the effect these new tools have on current ITS practices. This theme is motivated by a number of factors. First, recent advancements in mobile technologies are reshaping how individuals learn in and out of the traditional classroom environment. These tools provide a new means for delivering engaging content, while providing the interfaces to administer interactive practice materials. Understanding the fundamental challenges associated with delivering instruction through tablets and smartphones is necessary to make their application as effective as possible. In addition, modeling techniques (e.g., cognitive, behavioral, and physiological models) and how they inform pedagogical decisions must be explored.

Each contributing author will be instructed to include a section discussing the application of their approach in a domain-independent context. In addition, each author will be asked to conclude with a feasibility analysis of their techniques applied within a domain-independent architecture like the GIFT and what assumptions and limitations are associated with its instantiation.

Formatting instructions:
Please ensure that your papers are formatted correctly and are within the 10-page limit. Abstracts should be 500 words or less. Go to the Information for LNCS Authors for additional information on formatting. Download the LNCS template for the word processing software you would like to use. E.g., when using Word 2007, download LNCS-Office2007.zip, when using Word 97-2003, download word.zip, when using LaTex, download lncs.zip, and so forth. Note that most but not all of these downloads are listed at the top right (notable exception: LNCS-Office2007.zip is listed further down). You may ascertain which file to download for use with your preferred word processor by clicking on the relevant "Proceedings and Other Multi-author Volumes ..... " link. For Word 2007 this actually gets you to the download link. Unzip the file and study the instructions.

Submission instructions:
Paper submissions should be 10 pages maximum in Springer LNCS format and submitted through Easy Chair at: https://www.easychair.org/conferences/?conf=itsped2014. Only submissions in .doc (Word) format will be accepted. All submissions should be in English. Address any questions to benjamin.s.goldberg@us.army.mil.

Important dates:
Workshop Papers due: March 20, 2014
Decisions communicated to authors: April 20, 2014
Camera ready papers due: May 5, 2014
Workshop date: June 06, 2014