

**Abstract:** technique was studied. A structured questionnaire was used to collect data, and Cronbach alpha technique was used to determine the internal consistency of the items, which yielded a co-efficient of 0.81. Data collected were analyzed using mean while t-test statistic was used to test the hypothesis. The study identified viable basic computer skill needs, software development skill needs, and hardware maintenance skill needs of the school leavers, and recommended that the government and curriculum planners should integrate the identified skill needs into the secondary school curriculum to empower the youths for economic sustenance and peaceful co-existence.

**Paper Nr: 133**

**Title:** AFINA-te - A Healthy Lifestyle Information Website, Online Food Diary and Exercise Log Directly Towards Children

**Authors:** Nuno Guimarães, Vera Ferro-Lebres and José Ribeiro

**Abstract:** Childhood obesity is according to the World Health Organization one of the most concerning problems today. Educating children to a healthier lifestyle is a difficult task due to the lack of interest or concern that they demonstrate. The interest that children have in technology and the time they spent online in games or simply surfing the web may be seen as an opportunity to instill knowledge about healthy eating and healthy lifestyle. There are already several online health counseling websites but it seems to exist a lack of such platforms directly towards to children. Afina-te website is an online platform that aims to monitor and educate children to a healthier lifestyle through the exposition of information, interactive applications and educational games. It is also capable of provide feedback about what users eat and the exercise they practice. This paper describes the development and resulting health counseling website.

**Paper Nr: 144**

**Title:** Student Focused Dashboards - An Analysis of Current Student Dashboards and What Students Really Want

**Authors:** Gabriel Reimers and Anna Neovesky

**Abstract:** Online learning analytics dashboards are already available in various online learning platforms and are in use at schools and universities. In this paper we give an overview about several existing dashboard applications. Most of these dashboards are either targeted at teachers and tutors or focus on the presentation of research relevant learning analytics concepts. We present two surveys among school and university students asking them about their requirements on a learning dashboard. The results show that basic requirements of students are not addressed in current learning platforms and dashboards. We formulate several research questions that need to be answered to create dashboards that put students in the center of dashboard design processes and give an outline of our own efforts in that direction.

**Paper Nr: 146**

**Title:** Gesture Recognition Technologies for Gestural Know-how Management - Preservation and Transmission of Expert Gestures in Wheel Throwing Pottery

**Authors:** Alina Glushkova and Sotiris Manitsaris

**Abstract:** The acquisition of gestural know-how in manual professions constitutes a real challenge since it passes from master to learner, through a many years long « in person » transmission. However this binding transmission is not always possible for practical reasons; the learner must train himself alone, by using traditional Knowledge Management tools such as e-documentation and multimedia contents. These tools present important limitations, only providing the learner expert knowledge in a descriptive way, with a low attractiveness and interaction level, without any sensorimotor feedback. It thus becomes crucial to find novel ways to preserve and transmit know-how. In this work we present the idea of a methodological framework for gestural know-how management in wheel throwing pottery, based on motion capture and gesture recognition technologies. In combination with machine learning techniques, they permit to model the practical, cinematic aspects of potter's expertise. These technologies can be used to compare experts' and learners' simulated performances and to provide real-time feedback to the learner, guiding him in the adjustment of his gestures. The final goal is to propose a novel and highly interactive embodied pedagogical application for gestural know-how transmission, supporting « self » trainings, and making them more efficient.

**Paper Nr: 149**

**Title:** Collaborative and Individual Learning - Mixing the Two

**Authors:** Richard Alterman and Kendall Harsch

**Abstract:** What is the right mix of individual and collaborative learning? This position paper will explore how online platforms can mix the two approaches, addressing problems inherent to each while increasing the learning. Approaches to collaborative learning can be differentiated by the type of coordination that is required, either tight or loose (Alterman and Larusson, 2013). Tightly coordinated learning tends to be more collaborative and loosely coordinated activities have more of an individual orientation. Modifying platforms of either extreme can achieve better balance between the individual and collaborative features of a learning activity. Heuristics are presented that support these kinds of transformations; blog and wiki-based platforms are used to ground the discussion. Also considered is the sequence of learning and how mixed platforms better prepare students for future learning.

**Paper Nr: 159**

**Title:** Teaching & Learning System for Diagnostic Imaging - Phase I: X-Ray Image Analysis & Retrieval

**Authors:** M. S. Shahriar Faruque, Shourav Banik, M. Kazi Mohammed, Mahady Hasan and M. Ashraful Amin

**Abstract:** This paper presents a framework for building diagnostic imaging teaching and learning facility for entry level medical students of Bangladesh. Initially we demonstrate an X-Ray image analysis and retrieval system that will work as one of the main component in this system. This web based system has three modes. First is the annotation mode where an expert radiologist manually performs annotation of raw x-ray images. To aid the annotation process proposed model proposes a manual and a semi-auto segmentation tool in identifying the region of interests (ROI) in the X-Ray images. Image Retrieval in Medical Applications (IRMA) structure has been used for the annotating the ROIs. In the learning mode, students can retrieve images from the database created by expert radiologists. We proposed information retrieval techniques to find x-ray images of interest. We have used text based and content based search methods which is based on term frequency-inverse document frequency (tf-idf), and Gabor filter respectively.

**Paper Nr: 160**