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'iTheory': Mobile Way to Music Fundamentals

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Abstract : The beginning of our century became a new digital epoch in the educational situation. Last decade the newest stage of this process had been initialized by the touch-screen mobile devices with program applications for them. The touch possibilities for learning fundamentals of music are of especially importance for music majors. The phenomenon of touching, firstly, makes it realistic to play on the screen as on music instrument, secondly, helps students to learn music theory while listening in its sound elements by music ear. Nowadays we can detect several levels of such mobile applications: from the basic ones devoting to the elementary music training such as intervals and chords recognition, to the more advanced applications which deal with music perception of non-major and minor modes, ethnic timbres, and complicated rhythms. The main purpose of the proposed paper is to disclose the main tendencies in this process and to demonstrate the most innovative features of music theory applications on the base of iOS and Android systems as the most common used. Methodological recommendations how to use these digital material musicologically will be done for the professional music education of different levels. These recommendations are based on more than ten year 'iTheory' teaching experience of the author. In this paper, we try to logically classify all types of 'iTheory'mobile applications into several groups, according to their methodological goals. General concepts given below will be demonstrated in concrete examples. The most numerous group of programs is formed with simulators for studying notes with audio-visual links. There are link-pair types as follows: sound — musical notation which may be used as flashcards for studying words and letters, sound — key, sound — string (basically, guitar's). The second large group of programs is programs-tests containing a game component. As a rule, their basis is made with exercises on ear identification and reconstruction by voice: sounds and intervals on their sounding — harmonical and melodical, music modes, rhythmic patterns, chords, selected instrumental timbres. Some programs are aimed at an establishment of acoustical communications between concepts of the musical theory and their musical embodiments. There are also programs focused on progress of operative musical memory (with repeating of sounding phrases and their transposing in a new pitch), as well as on perfect pitch training In addition a number of programs improvisation skills have been developed. An absolute pitch-system of solmisation is a common base for mobile programs. However, it is possible to find also the programs focused on the relative pitch system of solfege. In App Store and Google Play Market online store there are also many free programs-simulators of musical instruments — piano, guitars, celesta, violin, organ. These programs may be effective for individual and group exercises in ear training or composition classes. Great variety and good sound quality of these programs give now a unique opportunity to musicians to master their music abilities in a shorter time. That is why such teaching material may be a way to effective study of music theory.

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