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Title:

## An Example of Curriculum Design for Computational Thinking Development in Hong Kong

Abstract:

There is a growing integration of digital technologies across all sectors of society. A curriculum should be developed to nurture the next generation as creative problem solvers who can see the world through a computational lens. In Hong Kong, a curriculum which promotes Computational Thinking (CT) through programming is designed for K-12 schools. The CT learning outcomes of this CT curriculum compose of CT concepts, practices and perspectives. Based on the proposed CT learning outcomes and Interest-Driven Creator (IDC) theory, a seven-principle framework is proposed for guiding the design of K-12 CT curriculum. The first three principles relate to CT knowledge acquisition; and the other four principles relate to the design strategies for CT development. The CT curriculum underpinned by these seven principles delivers CT concepts, practices and perspectives in the curriculum through a programming environment. It also use interest-driven activity design as a strategy to incubate creators; and use the assessment criteria and staging of the final projects to nurture creativity. This talk will share the experience in designing and implementing the CT curriculum underpinned by the seven-principle framework.