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Affordances of Coding in School Mathematics and Beyond

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Affordances of Coding in School Mathematics and Beyond

Do you know the creator of the world's largest coronavirus tracker? The creator is not a high-end programming company or a genius computer scientist but just a seventeen-year-old teenager who started coding at the age of seven. As a mathematics teacher, I realize the opportunities that the teaching and learning coding affords not only low floor- high ceiling but also wide walls experiences. I am interested in the integration of coding in mathematics education to help students in providing solutions for real-life challenges. Therefore, I designed my study to analyze current coding implications and, specifically mathematical simulations of the spread of the COVID-19 pandemic, which were created using Scratch, a block-based programming language. My analysis outcomes will be used for the learning and teaching design of coding in the elementary and middle school levels of mathematics education.