Researchers at the University of South Florida have invented a hybrid hardcopy story book with interactive maps. The interactive map book uses wireless electronic pens to emphasize the spatial dimension of stories, thereby encouraging school students to develop and maintain a more spatial mental model of the story they are reading.

During the last decade, hardcopy books have steadily lost ground to more visual electronic media. However as book readers must construct more of the story details in their mind, books continue to provide more vibrant information and imaginative stimulation than the visual electronic media. As people read, they must develop, update and maintain a situation model of the information being read in four dimensions: temporal, emotional, causal and spatial. Of these dimensions, the spatial is most weakly maintained. This is even more unfortunate for the younger generations, even those who are spatially strong but verbally weak. These students tend to favor the stimulation of electronic media over books. Yet at the societal level, the ability for K12 education to impart visuospatial skills is vital for students intending to pursue further education in the sciences, engineering and related fields.

In this invention, educators propose to increase the accountability with respect to the spatial dimension of books. While reading this interactive map story book, school students will interact with maps on microdot paper, via wireless electronic “camera” C-pens. This will encourage them to create and maintain a more spatial situation model of the story.

ADVANTAGES:
- Provides more vibrant information and imaginative stimulation than the regular hardcopy books
- Provide the required impetus to the development of visual spatial skills of students
- Encourage K12 students to read more books

Innovative Technology for K12 Education Books

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