So far we’ve looked at five epistemic games, each of which shows the importance of one of the elements of an epistemic frame. With these illustrations I’ve argued that epistemic frames are a new way of thinking about thinking, and epistemic games like Digital Zoo, Escher’s World, The Pandora Project, and science.net offer a new way of thinking about learning—one that is critical to education in the high-tech, digital world of global competition. Computers are making the capacity for innovative thinking more essential than ever before. And the ability of computers to make epistemic games widely available provides an opportunity to think about our system of education in new ways to meet that challenge.

The question is: How do we get there from here?

At the end of each chapter I suggest that commercial games exist that can help young people develop important skills, knowledge, identities, values, and ways of innovative thinking. There are many games out there that are fun to play and that can help children learn. This final chapter looks at what makes epistemic games special by comparing two excellent games about cities: SimCity, one of the top fifty computer and video games of all time, and Urban Science, an epistemic game originally designed by Kelly Beckett and expanded by Elizabeth Sowatzke, researchers at the University of Wisconsin.  

D. W. Shaffer, How Computer Games Help Children Learn
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Thus far we have focused on the skills, knowledge, identities, values, and epistemology that players can take away from epistemic games—and at how many of these elements can be found or brought to current commercial games. A comparison of SimCity and Urban Science shows the particular power of linking ways of doing, knowing, being, caring, and thinking into a complete and coherent epistemic frame based on a real professional practicum. More important, though, the comparison shows how the next steps toward education for the digital age may not come in schools or even at home, but from a different and perhaps unexpected direction.

Building Cities

Building things is fun. With sand, Lego bricks, Lincoln Logs, paper, scissors, and, tape, clay, papier mache, wooden blocks, cardboard, paper bags, paint paper and glue, or bailing wire and twine. Building things is so much fun, in virtual worlds as in the real one, that some of the most popular computer and video games let players build things. In these games—which go by the unfortunate moniker God Games for reasons I will explain in a moment—players can design and run complex projects over time, developing and managing a business (which is why so many of them have the word “Tycoon” in their title), or, in the case of SimCity—the most famous construction game of all—building and leading a municipality as it grows from tiny hamlet to urban sprawl.

My daughters have a particular fondness for building cities in the sand when they are at the beach. At home, they focus on zoos, made from Playmobile, stuffed animals, and a Fisher Price barn. So perhaps it is not surprising that one of their favorite computer games is one of these construction games, Zoo Tycoon.

ZOO TYCOONS

In Zoo Tycoon, players get to landscape and build paths through their zoo property. They put up fences and buy animals for the exhibits, choose food for their animals and place water in the exhibits, place benches, bathrooms, concession stands, and donation boxes for zoo patrons to use, hire and manage staff, and