The Endless Forest [1] is described by its creators as a “multiplayer online game and social
screensaver”. Although it is an MMO (Massively Multiplayer Online) game, it runs on only a
single server. The game is implemented as a Windows screensaver. Development of the game was
funded by several artistic cultural institutions, including Musée d’Art Moderne Grand-Duc Jean,
which also hosts the server. The gameplay is very abstract and artistic— for example, players may
not chat directly with each other, but must attempt to communicate through deer-gestures.

“Distributed” in this context could be thought of as simply meaning “networked”— there is a client
and a server in different locations. There may also be multiple clients or multiple servers all
comprising the same virtual world.

Sometimes it would be desirable for clients on different servers to not interact— for example, there
could be servers for different languages, player skill levels, gameplay styles (such as Role Play,
Player Vs. Player), etc.. However, in other cases it would be desirable for these clients to interact,
for example if the multiple servers were being used only for performance reasons. A server or
group of servers on which clients can interact, and which thus comprise the same virtual world, is
sometimes called a “shard”.

MMORPGs (Massively Multiplayer Online Role Playing Games) have existed for decades (since
the 70s), starting as text-based and eventually evolving to virtual-reality graphics. At what point
they would be considered “virtual worlds” is debatable, though they could technically be considered
so as long as the server maintains some world state.

A more modern example, World of Warcraft [6], was released in 2004 and holds the Guiness World
Record for “Most popular MMORPG”. It has grossed over $10 Billion [7]. It consists of multiple
servers, or shards, which it calls “realms”. These allow various combinations of language, role-play
dialog, and player-vs-player combat.

“Mirror worlds” are recreations of real locations in a virtual world. Google Earth [2] is one
example of this, particularly when using its 3D building models. Other examples are flight
simulators, such as Microsoft Flight Simulator [3] (first released in 1982), or trucking simulators,
such as American Truck Simulator [4]. Mirror worlds could also be used for non-entertainment
applications such as disaster-response training or planning military operations. In fact, Lockheed
Martin actually has a product called Mirror World [5], based on “video game technology”, for
military Command and Control.

Outerra [8] is a “3D planetary engine for seamless planet rendering from space down to the
surface”. It “can use arbitrary resolution of elevation data, refining it to centimeter resolution using
fractal algorithms”. The planet Earth has been implemented using Google Maps data, and Mars is
planned as well.

The virtual world in The Matrix could be considered a prime example of a fictional mirror world, as
well as a distributed virtual world.