

What should happen next?

There are many digital entertainment applications, such as computer games, that use stories to structure users' activities. The distinction between interactive narrative and other forms of digital entertainment is that interactive narratives systems afford the player to act in ways that fundamentally alter the direction or outcome of the unfolding storyline.

To illustrate the significance of a user able to act to change the direction or outcome of a narrative as it is unfolding, consider the holodeck from the popular television series, Star Trek: The Next Generation. The holodeck is a fictitious technology that uses holography to immerse humans in a photorealistic virtual reality, often populated by virtual, intelligent, computer-controlled characters.

While the holodeck is portrayed as having many serious uses, one of its primary uses is entertainment through the immersion of its users in fictional worlds. Examples from the TV series range from wild west to film-noir to Victorian dramas. Suppose one were to enter the holodeck to step into the shoes of Shakespeare's Hamlet. Evolution.

Further suppose that the user chooses not to reenact the actions and dialogue of the Hamlet character, who remains locked in indecision throughout a majority of the story. Instead, the user strikes out in a new direction, perhaps confronting and slaying the antagonist, Claudius, in the first act instead of the third.



ADVISORY COMMITTEE

Dr Prashanth CSR
Dean Academics,
HOD, CSE

Prof Beena B M
Dept Of CSE

STUDENT EDITORS

BRIJESH K.R
ABHISHEK ROY

NEW HORIZON COLLEGE OF ENGINEERING

INTERNET OF THINGS AND ARTIFICIAL INTELLIGENCE

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

IOTA / Q1 / SEP 2016



Controlling IoT Devices from Minecraft

Modern video games continue to push the limits of immersion. With the introduction of smart devices, integrating a simulated environment with the real world is becoming a possibility, even for hobbyists. Events triggered in a video game can be relayed to physical devices. One could turn on a laundry room appliance by pushing a button in your game. Or changes in the local weather can make it rain in the game. The possibilities are endless.

This project explores controlling IoT (Internet of Things) devices such as lights and home appliances from Minecraft using a mod. Minecraft mods (short for modifications) are extensions that modify the game to add content, change the feel, or give more options to the game.

With the increasing popularity of IoT standards such as AllJoyn, the extension to physical devices is easier than ever.

>> CONT. PAGE TWO

“This project requires Minecraft PC version.”

Tech used

>> CONT. FROM PAGE ONE

- AllJoyn as a standard application protocol to discover and control devices.
- OPTIONAL: [AllJoyn DSB projects](#) to add non-AllJoyn devices to AllJoyn network. For GE light bulb see [ZigBee DSB tutorial](#).
- Java as programming language to interact with AllJoyn devices from Minecraft.
- Minecraft Forge as mechanism to package and integrate our mod with Minecraft.
- Minecraft PC version as an example video game.



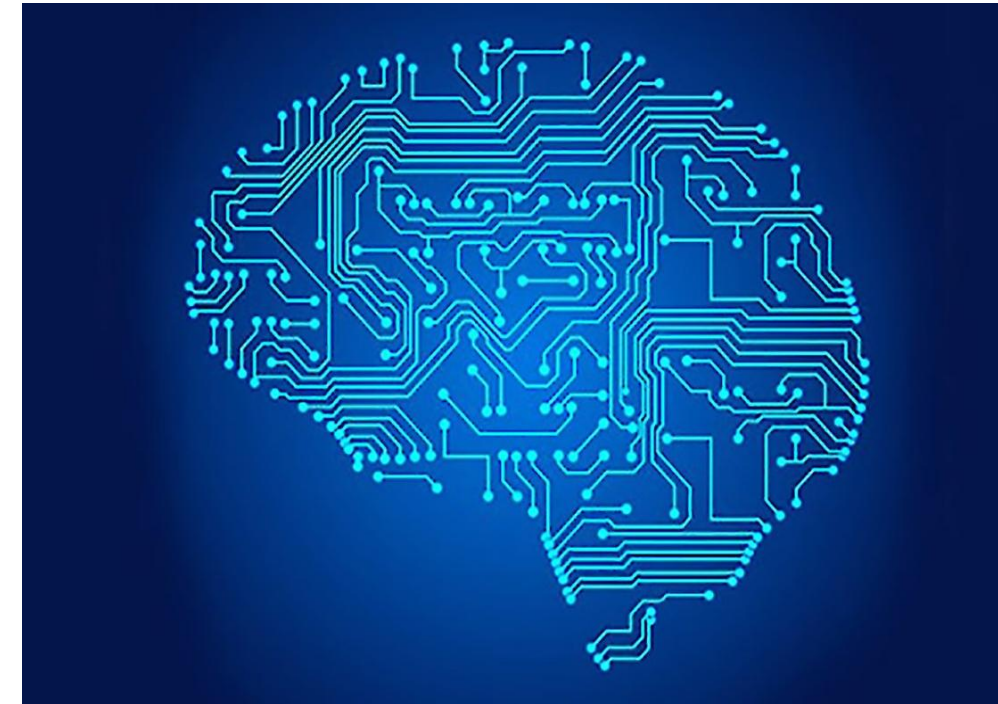
“ Brightness and Color of every AllJoyn LSF light bulbs changes as the game surrounding light goes darker or brighter.”

While playing Minecraft, with this mod running, you will see temperature and light level displayed in the upper-left corner. The values change as you explore the world of Minecraft. If you have an AllJoyn light or an AllJoyn air-conditioned device connected to the same network, their properties will also change to create a game room atmosphere



Set up

1. This project requires Minecraft PC version.
2. To launch this Minecraft mod, Minecraft Forge is required. Follow the instructions on Forge website to setup.
3. If you are prompted to install Java runtime library, go ahead and install it.
4. After installing Forge, you need to download MinecraftAllJoyn Mod Binaries (alljoynMod-1.8-1.1.jar) in code section to your Minecraft folder. On Windows PC, it's %appdata%\minecraft\mods. Follow the instructions to learn how to find your Minecraft mod folder.
5. You also need to download AllJoyn Core SDK and copy alljoyn_java.dll to a directory in your system %PATH%.
6. Finally, start Minecraft and change your profile to 'forge' in the bottom left corner of the start screen and proceed to play.



Interactive Narrative: An Intelligent Systems Approach

Storytelling, in oral, visual, or written forms, plays a central role in various types of media, including novels, movies, television, and theater. The prevalence of storytelling in human culture may be explained by the use of narrative as a cognitive tool for situated understanding (Gerrig 1993). This narrative intelligence—the ability to organize experience into narrative form—is central to the cognitive processes employed across a range of experiences, from entertainment to active learning. It follows that computational systems possessing narrative intelligence may be able to interact with human users naturally because they understand collaborative contexts as emerging narrative and are able to express themselves by telling stories.

A number of narrative intelligence tasks have been studied from a computational perspective including story understanding, story generation, and commonsense reasoning. One of the most compelling applications of narrative intelligence is the prospect of interactive narrative.

