**TimeTraveller™: First Nations Nonverbal Communication in Second Life**


**Abstract**

When Mohawk artist Skawennati Fragnito began working on her machinima series *TimeTraveller™*, she and members of Aboriginal Territories in Cyberspace (AbTeC) were faced with the need for numerous nonverbal communication animations for use with their avatars in the virtual world Second Life. The ability of users to create custom animations in Second Life has resulted in the availability of thousands of purchasable and free animations, but Fragnito and her team had a difficult time finding existing animations that were appropriate for First Nations representation within the context of the *TimeTraveller™* series. After a series of exhaustive searches through thousands of built-in and user-made animations proved fruitless, Fragnito and her AbTeC team created for themselves a number of specialized animations for nonverbal communication. These animations have characteristics that may inform the design of avatar animations in future virtual worlds.

In *TimeTraveller™*, Hunter—an angry young Mohawk man living in the 22nd century—embarks on a vision quest using the TimeTraveller™ device that takes him back in time to historical conflicts that have involved First Nations. Creating the machinima episodes required nonverbal communication animations that were (1) culturally appropriate for First Nations representation, (2) representative of Fragnito’s visual style, and (3) useful as components of cinematic compositions.

In order to address culturally appropriate nonverbal communication, AbTeC made a suite of nonverbal communication gestures based on the personal experiences of Fragnito and other First Nations members of the team. For example, in many First Nations cultures, an upward nod signifies a subtle acknowledgement of presence from one person to another. This, and several other culturally related animations required for the telling Hunter’s story, simply did not exist in Second Life, least of all at the number of user-owned shops selling culturally appropriated “Native American” items such as clothing and accessories. Secondly, when certain nonverbal communication animations did exist, they were often too performative and dramatic to fit Fragnito’s directorial style. She required animations that were subtle and realistic, so the AbTeC team learned how to perform the necessary customizations. For example, a scene in *TimeTraveller™* required a mouth-to-cheek kiss, but Second Life only offered (albeit thousands of) mouth-to-mouth kiss animations. Lastly, since *TimeTraveller™* is a machinima, it required animations that were detailed enough to film well in close-ups but expansive enough to be visible and intelligible in wider shots and while the camera was moving. Second Life’s existing animations were also often too choppy to meet cinematic standards, which prompted AbTeC to make animations to the smoothness necessary for specific scenes.
This paper will describe the motivation behind, design process for and results of various nonverbal communication animations created by AbTeC in Second Life for *TimeTraveller™*. The work under discussion is ongoing since Fragnito is in development of Episode 05 of a projected ten episode series. However, the results thus far offer virtual world developers and researchers strong insight into crafting animations for nonverbal communication that are culturally diverse and/or useful for enabling users to make visually rich and dramatically compelling machinima.

1. **Machinima**: Films shot using game or virtual world engines.
3. Aboriginal Territories in Cyberspace (AbTeC): A research network based out of Concordia University in Montreal, Quebec that is made of academics, artists, and technologists whose goal is to define and share conceptual and practical tools that will allow us to create new, Aboriginally-determined territories within spaces such as online games and virtual environments.
   [http://www.abtec.org](http://www.abtec.org)
4. **Second Life**: A free 3D virtual world in which users have individual avatars.