

**TOWARD CONVERSATIONAL CAPACITY
IN SYNTHETIC CHARACTERS**

By

Stephen Nerbetski

A Thesis Submitted to the Graduate
Faculty of Rensselaer Polytechnic Institute
in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
MAJOR SUBJECT: COMPUTER SCIENCE

Approved:

Selmer Bringsjord
Thesis Adviser

Rensselaer Polytechnic Institute
Troy, New York

November 2007
(For Graduation December 2007)

ABSTRACT

This thesis expands on two major parts of Natural Language Generation (NLG) in relation to advanced synthetic characters. After a brief overview of previous work, new methods and ideas are explored through the situation of a synthetic character known as E. This document first looks at the process of a synthetic character selecting what it wants to say, and how ‘Response Classifications’ can help generalize this process. Then, we go on to introduce a new translation engine, based off of previous work, which uses a simple, yet expressive model to translate from our character’s knowledgebase representation to English.