THE INTEGRATED HUMAN-LIKE AGENT MODEL FOR FEAR DYNAMICS OF PERSONS WITH POST-TRAUMATIC STRESS DISORDER

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ABSTRACT

Post-traumatic Stress Disorder (PTSD) is associated with impairments in emotional experience and expression. In most training environments for clinical psychology, a human agent model used to simulate the real world and to ensure full control of all the parameters implied during the experiments. This kind of model is expected to encapsulate a number of important patterns that related to the underlying theories of PTSD. Hence, it allows clinical psychologists to manipulate several important parameters and relate it to the important findings in their respective domains. Therefore, the outcome from this project is a human-agent model that generates related emotion displays (particularly sad and fear) of PTSD patient. A computational model is developed to simulate the purpose conditions. A number of experiments have been conducted to evaluate the proposed model.

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INTRODUCTION

1.1 Background

Sativa and Jones (Riva, 2003) noted it, the advantages of virtual environments to health care can be summarized in a single word: *revolutionary*. It means, these rapid and far-reaching technological advances are changing the ways in which people relate, communicate, and live. Based on that, it explains why important technologies that were hardly using ten years ago, such as the e-mail, Internet, and the familiar methods for medical diagnosis are becoming practically easier and feasible to be used widely. This will improve the way healthcare practitioners in providing better training, therapy and medical education.

However, the possible impact of virtual environment on health care is even higher than the one offered by the new communication technologies; for example, in the most training environments by clinical psychologists, the agent (human-like) is used to simulate the real world and to assure researcher full control of all the parameters implied. A human-like agent proposes (artificial)

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