

Constructing Agents to Learn about Oneself: Animated Agents as Expressive Vehicles for Art Therapy

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Abstract: This poster session will present a unique collaboration of art therapy with instructional technology through the use of animated agents as a unique computer-based medium in art therapy. By constructing agents as an extension of themselves, clients can progress toward more meta-emotional understanding, and the therapist can use the agents as a projective tool to better understand clients' current state of personal awareness. The session will demonstrate examples of client-created agents and present future possibilities for using and researching the use of animated agents for art therapy.

Introduction

Art therapists using computers as a multi-tasking art medium is not a new idea. Many art therapists actually use the drawing and painting programs created for computers as a means to draw and create for various clients (Malchiodi, 1999, 2000; Parker-Bell, 1999). However, many of the programs used by the art therapists are limited to those created by computer programmers who are not even aware that they are being used in a therapeutic capacity. Thus, the end users are not considered, and are limited in their capacity to provide free creative expression for their clients—in other words, the parameters establishing structure are out of their control. Gussak and Nyce (Gussak & Nyce, 1999) indicated that ideally, the art therapists and computer programmers would work together, using a shared language, or tools from the shared “visual toolbox,” to create computer programs with the end user, art therapy clients, in mind. This paper suggests that we progress one step farther: that the client actually construct three-dimensional animated agents, and that observation and evaluation of these agents can be used to provide information about the client, and ultimately lead to therapeutic advantages.

The Pedagogical Agent Learning Systems (PALS) Research Lab at Florida State University has been investigating the role of animated agents' image, represented role, and animation on learning (Baylor, 2000, 2002a, 2002b; Baylor & Ebbers, 2003; Baylor & Group, 2003; Baylor & Kim, 2003; Baylor & Ryu, 2002, in press). This collaboration of instructional technology with art therapy takes the use of pedagogical agents to another level by investigating the use of agents to facilitate *learning about oneself*.

Representing oneself

Art therapy clients in our current research are using the Poser™ 3-D graphical development software, integrated with Microsoft Agent™ technology with a user-friendly interface developed by PALS Lab. Ultimately, clients can create 3-dimensional animated characters of themselves or others (see Figure 1), that represent

personal characteristics, interaction styles and personalities. These kinds of images and/or animations can be used to assess how clients feel about themselves, serving as a type of “computerized” Draw-A-Person (DAP), but that is much more sophisticated. Authentic client examples and analysis will be demonstrated as part of the poster session.



Figure 1. Examples of User-created Agents (Baylor, in progress)

Although how a pen-paper type drawing is completed may tell us a lot about the client, (i.e. line quality, ability to draw realistically), in this case, much like photo-collage, how the forms are organized can provide key information on the developmental level of the client (e.g., Lowenfeld, 1998). Further, constructing the agent(s) as interactive or with dialogue could serve as an updated assessment technique (e.g., like Kinetic Family Drawing or a Kinetic House-Tree-Person); however, the advantage of agent construction is that the actual interactions can be fully created, demonstrated, and modified by the client so that the therapist no longer has to imagine the intended instructions as a way to arrive at its meaning. In other words, therapists no longer have to rely on the client’s ability to describe the interactions that are occurring, or the relationships between the agents (e.g., mother, spouse), but can actually witness them occurring “on the screen.”

Representing the art therapist

Another benefit is to actually use the agent that is developed to represent the actual art therapist. Much like agents that students construct provide information on their preferred types of instructor in terms of gender and ethnicity (Gilbert, 2002), art therapy clients could construct their ideal (or conceived) therapist. Although still in its conceptual phase, this could potentially provide valuable information for therapists to best meet client needs. This can also take distant therapy to another level, building on recent studies using computers for distant “tele-therapy” in which “groups” meet and show their art work to one another via their computer screens. What if, as well as being able to show their work, they are able to receive their directions from the image that they most would like to interact with? A bit Huxlyian to be sure, but if the style of therapy is still that of the art therapist, but the image acts as the conduit for the information (think the Wizard behind the curtain) then they may be more responsive to the process.

Other applications

Beyond the uses of agent construction for representing oneself and the therapists, clients could also construct animated agents in other domains. For example, to facilitate the career counseling process, clients could construct agents to represent themselves as electrical engineers, travel agents, or stock brokers. Such agents could be evaluated as to their resemblances to the client as a predictor of their readiness or self-efficacy for entering that particular career. Or in a prison setting, controlled studies could be conducted to investigate how constructing affective agents could possibly help counsel depressed inmates. Overall, the fact that such animated agents can allow for realistic *affect* (Kort, Reilly, & Picard, 2001; Picard, 1997), and *interaction* (Koda & Maes, 1996; Picard, 1999) are key advantages of animated agent technology in facilitating the therapeutic process. This session will present examples to exploit the potential of animated agent construction and present current and future research projects.

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