Agent Ruby is an Artificial Intelligent Web agent that is shaped by encounters with users—thereby simultaneously being part of the real and virtual worlds. Ruby converses with users, remembers their questions and names, and is ultimately able to recognize their voices and have moods corresponding with whether or not she likes them.

Her mood may also be affected directly by Web traffic. Agent Ruby is seeded to user servers and is downloadable to users' desktops or Palm OS handheld computers; it is multiplatform, integrating PC, Mac and Palm operating systems as well as a unique installation.

The Agent will be part of an evolutionary virtual system that invoke questions about virtual potential of consciousness, identity and corruption, redemption and interaction in virtual systems.

Users can interact with Ruby through both voice and text and can also download Agent Ruby onto palms and laptops, thereby extending her life cycle into one of continual replication and breeding. Agent Ruby challenges the legality of genetic DNA ownership by creating a virtual entity comprised of the aesthetics, experiences and interests of users. This 'tamagochi-like' creature will be an Internet-bred construction of identity that will flesh out through cumulative virtual use, reflecting the global choices of Internet users.
Agent Ruby
Is an artificial intelligent web agent that is shaped by and reflective of encounters and adventures that it has with users, and will be seeded to user servers through a site of origin or birth. The agent (Ruby) will be downloadable to appear on a portion of user’s desktops and will be multi platform integrating PC, Mac and Palm pilots. Ruby chats with users, remember users questions, ultimately be able to recognize their voice and have moods and emotions. Her mood may also be affected directly by web traffic.

By
Lynn Hershman
Funded by The Daniel Langlois Foundation,
The San Francisco Museum of Modern Art
If you are sending more than one sample, please copy this page. Sample(s) must be cued: indicate how long each sample should be viewed for a COMBINED viewing time of no more than 15 minutes. If slides are included in this application, please list the title and year of the work on this form.

Title
Agent Ruby.Com Phases 1 and 2

Year
2000-

Technical Info

<table>
<thead>
<tr>
<th>Original Format</th>
<th>Format Submitted for Viewing</th>
<th>Preferred OS</th>
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<tr>
<td>Software</td>
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Web Info (answer only if sample work is in Web format)

- URL http://www.agentruby.com (if more than one please list them below)
- Browser requirement __________
- Plug-in requirement __FLASH__
- This sample requires broadband connection (fast Internet Connection)
- A local copy of the sample work has been included with the application

Special Information For Viewing:

Description of Work (use an additional sheet if necessary)

The description of this work is in the proposal. It is an evolving artificial intelligent web agent whose memory and intelligence grows with use, as do her moods and emotions.

I have also submitted a slide from this year showing emotional ranges she will eventually have.
Title: THE DIFFERENCE ENGINE #3

Year: 1995-2000

Genre: INTERACTIVE NETWORK

Applicant's Role in Production: ARTIST, CONCEIVED AND OVERSAW ALL ASPECTS

Original Format: NET BASED ROBOTIC INSTALLATION

Total Running Time: FOREVER

Color/B&W: COLOR

Sound/Silent: THE VIDEOTAPE HAS NARRATION, THE PIECE IS SILENT

Format Submitted For Screening: VHS

Special Information For Screening

Description of Work

WINNER, GOLDEN NICA, PRIX ARS ELECTRONICA 2000 The Difference Engine #3 uses the architecture of the ZKM Media Museum, in Karlsruhe, Germany as a 3D template and the visitors to the museum as the interface. It is an interactive, multi-user, telerobotic sculpture about digital absorption and transformation of the body from a physical to a virtual world.

This piece calculates captured images and position of visitors in both the physical space of the museum which corresponds to the virtual piece on the net. A graphical representation of the museum, acts as a "mirror link" between "real" visitors to the museum and those who lurk "virtually" on the internet. The "mirror" reflects:

1.) from the internet into the physical space of the ZKM Museum and
2.) from Museum into cyberspace.

ONLINE visitors choose a "generic" avatar to represent them and travel ALONGSIDE the avatars created for people in the actual museum. Visitors can see into the space via the a live video feed from the camera that is capturing the image of people in the museum. There is a dedicated chat line that allows viewers ONLINE to communicate with people in the physical space.
Artist Statement

For as long as I can remember, I’ve been obsessed with counterfeit representations of life. As early as 1956, before I knew the terminology of cyborgian discourse, I made drawings, paintings, sculptures and photocopied images about the integration of humans and machines which can result in what I term **techno-human identity.**

I have worked in photography, video, installation and interactive and online art. My 53 videos and seven interactive installations have won many international awards. My body of work addresses the social construction of female identity and related issues of social conditioning, most often through the narrative construct of an alter ego or “agent.”

The 21st century arrived with a Pandora’s box of new technologies such as genetics, nanotechnology and robotics that dynamically affect the destiny of the human race. Our relationship to computer based virtual life forms that are autonomous and self replicating surely will shape the fate of our species.

I have always been attracted to digital tools and cinematic metaphors that reflect our time, such as privacy in an era of surveillance and personal identity in a time of pervasive manipulation.

Lynn Hershman
2002
Project Narrative
http://www.AGENT RUBY.com PHASE 4
by
Lynn Hershman

A Self Breeding Autonomous Internet/Web Agent /Installation

CONCEPT:

Agent Ruby is an Artificial Intelligent Web Agent that is shaped by encounters with users—thereby simultaneously being part of the real and virtual worlds. Ruby converses with users, remembers their questions and names, and is ultimately able to recognize their voices and have moods corresponding with whether or not she likes them.

Her mood may also be affected directly by Web traffic. Agent Ruby is seeded to user servers and is downloadable to users' desktops or Palm OS handheld computers; it is multiplatform, integrating PC, Mac and Palm operating systems as well as a unique installation.

The Agent will be part of an evolutionary virtual being comprised of a networked data base, sensors and GPS units all of which incites questions about virtual consciousness, identity and corruption, redemption and interaction.

USER EXPERIENCE:

Users can interact with Ruby through both voice and text and can also download Agent Ruby onto palms and laptops, thereby extending her life cycle into one of continual replication and breeding. Agent Ruby challenges the legality of genetic DNA ownership by creating a virtual entity comprised of the aesthetics, experiences and interests of users. This 'tamagochi-like' creature is an Internet-bred construction of identity fleshed out through cumulative virtual use, reflecting the global choices of Internet users.
Agent Ruby will not work unless interaction occurs. Viewers "talk" to the artificial Intelligent Agent and by doing so, deepen her memory and intensify the relationship between the user and the agent.

In Phase 4, viewers’ voices will be recognized by Agent Ruby and viewers will be able to talk to her directly, without typing on a keyboard. She will be able to respond, like a friend. GPS units and specially devised sensors will locate viewers at predetermined points, allowing Agent Ruby to continue a conversation.

Ruby will be downloadable to users’ handheld devices using WideRay-powered beaming stations. Users will be able to point their own handheld device (Palm-Powered PDA) at the WideRay Jack mobile caching server to download the Agent Ruby application.

WideRay provides the network infrastructure to enable high-speed transmission of data and applications to handheld devices on location. Ruby is designed to have four phases of her life cycle which are as follows:

1) The Web Site:
the hub from which the entity searches and returns and where communication takes place. (Completed
http://www.agentruby.com)

2) Beaming/Breeding Stations:
allows users to replicate Agent Ruby onto their palms, shifting information directly. (Completed)

3) Ruby Speech Synthesis and Mood Swings:
enables users to speak directly to Ruby. Ruby reacts with different moods. (Completed)

4) GPS Sensors and Voice Recognition:
This final phase will allow Agent Ruby to interact with users and locate them with a predetermined site and continue the conversation.
FEASIBILITY STATEMENT

I intend to use the team of programmers who were able to complete phases 1, 2, and 3 to complete PHASE 4. In my 30 year history, I have always brought my projects to successful completion. We are beginning to outline fundamental aspects for Phase 4, especially the gps units, sensor and voice recognition and see no aspect that will hinder the project's being brought to eventual existence in reality.

In 2004, The Henry Gallery will organize and tour a retrospective of my work, spanning 30 years, including LORNA, which is noted to be the first interactive installation in the history of the genre of computer based interactive installations.

This installation would be a very important part of that exhibition, which is now being planned to tour the United States and Europe.

FELLOWSHIP USE

The Fellowship money will be used to develop the installation of this work, using the GPS units, sensor and voice recognition. It will be the first grant I have received in the United States (though I have won 2 prizes) and will allow me finally to "buy time" to concentrate on my work.

RELATIONSHIP TO PAST WORK.

From 1970-1980 I created a virtual work by the name of Roberta Breitmore. This work was about a fictional identity who was fleshed out through life's experiences. She interacted with people, had numerous adventures and used time to shape her future. As early as 1956, before I knew the terminology of cyborgian discourse, I made drawings, paintings, sculptures and xeroxed images about the integration of humans and machines. I was unwittingly interested in an evolutionary cycle towards the (e)mergence of techno-human identity that used data bases and code as the spine of an evolving cyborgian posture. I have been working since 1970 with issues of
identity and view this project AGENT RUBY PHASE 4 as a direct continuation of these themes.

Phases 1 and 2 were funded by:
The University of California, Davis
The Daniel Langlois Foundation
The San Francisco Museum of Modern Art
**BUDGET: AGENTRUBY.COM PHASE 4**

**ARTIST FEE**
- $7,000.00

**SOFTWARE**
- Programmers (3) $9,000.00
- Graphics $4,000.00
- Speech synthesis software $2,000.00

(All software will be adapted for this unique installation, however we will adapt, with permission, existing software, or programs such as AIML.)

**HARDWARE**
- Flat Screen $3,000.00
- Computers $4,000.00
- Projector $3,000.00
- GPS Units, Sensors $2,000.00
- Continengies $1,000.00

**TOTAL $35,000.00**

NOTE: exact projectors and computer requirements are approximate based on work already completed. As prices are in constant flux, except for programmer fees, the hardware prices are approximations, but will not exceed these amounts, and most likely will be with 5% of these amounts.

**FUNDING HISTORY**
- $25,000 Given by Daniel Langlois Foundation
- $15,000 Given by San Francisco Museum of Modern Art
- $5,000 University of California Davis
- $45,000
- $35,000 Needed to complete phase 4 (THIS REQUEST)
- $80,000 Project Budget (phases 1, 2, 3, 4)

Lynn Hershman
LYNN HERSHMAN
Selections of C.V. 1995-2002

Touring Retrospective being planned for 2004,
Henry Art Gallery, Seattle Washington

One Person Exhibitions


1996 Virtually Yours, Retrospective and catalogue National Gallery of Canada, Ottawa.

1998 Retrospective, Transmediale, Berlin

1999 Tribute and Retrospective, The Kitchen Center for Video and Music, New York

2000 Retrospective, Sweeney Gallery, University of California, Riverside.

2001 University of Virginia Museum of Art, Charlottesville, Virginia

2002 Paule Anglim Gallery, San Francisco, California

San Francisco Museum of Modern Art

Group Exhibitions


1999 Connected Cities, William Lehmbuch Museum, Duisberg, Germany June 13 - October 2 (Catalogue)

Net.Condition ZKM, Institute of Contemporary Art, Barcelona, ICC Tokyo September -October, 1999 (Catalogue)
2000

*Tempus Fugit*, Nelson Atkins Art Museum, Kansas

*Media_City*, Seoul, Korea

*Self as Someone Else*, NRW Museum, Dusseldorf (Catalogue and essay)

Retrospective, Tribute, Feminale, Köln Germany October 12-14

2001

**Made in California, 1900 – 2000** Los Angeles County Museum of Art October 22, 2000 – February 25, 2001

**Double Life** Foundation Generale, Vienna Austria, May 12 – August 3, 2001

**San Diego Museum of Art 100 years of California Art**

2002

**High Tech/Low Tech Hybrids: Art in a Digital Age**
Bedford Gallery March 26 – June 16, 2002

**I-5 Resurfacing: Four Decades of California Contemporary Art**
San Diego Museum of Art *April, 2001 – April, 2000*


**Virtual Voices in Das Zweite Gesicht** Deutsches Museum

**Awards and Prizes:**

1994, Siemens ZKM Mediaprize (with Peter Greenaway, Jean Baudrillard)
1995 Tribute and Retrospective, San Francisco Film Festival
1996 Electronic Cinema, Japan award for Drama (Conceiving Ada)
1997 Flintridge Foundation Award for Lifetime Achievement in the Visual Arts
1997 National Education Media Award for Innovation
1998 Nominated for Independent Spirit Award
    Sundance Screenwriter’s Lab Fellow
1999 Golden Nica, Priz Ars Electronica, Linz, Austria
2002 Alfred P. Sloan Foundation Award, Hamptons Film Festival

**Books**

*Clicking In, Hotlinks to a Digital Culture*, Bay Press, Seattle, 1996

Selected Collections

Hess Collection
San Francisco Museum of Modern Art
Auchenbach Graphics Collection, California Palace of the Legion of Honor
Seattle Art Museum
National Gallery of Canada
Museum of Contemporary Art, Warsaw, Poland
Walker Art Center
Los Angeles County Museum of Art
Oakland Museum of Art
University Art Museum, Berkeley