

Visualizing Amnesia : an Artist Residency at Memory Link / Baycrest
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program at OCAD University.

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As Artist in Residence at Memory Link / Baycrest,
I work with neuropsychologist **Dr. Brian Richards**,
user-participants and their family members, developing
new media visualizations of the perceptual experiences
associated with acquired brain injury



1. Aspects of my practice at Memory Link are engaged in studio-based learning in Integrated Media at OCAD, including -
 - **collaboration**
 - **attention to perceptual experience and its representation**
 - **a recombinant approach to media including compositing / remixing**

2. Working with clients - including artists - with **anterograde amnesia**, we use studio-based strategies to engage neuroplasticity and the procedural memory system - what philosopher Merleau-Ponti called "**knowledge in the hands**"
3. in this award-winning Media Television spot from the late 90s, Robin Len invented an analogue method for text animation using 3D software, long before AfterEffects was invented. I will return to this work toward the end of my presentation -- to see the video, click here → [CITY Media TV clip](#)



4. Formed in 1999 by Director/Designers William Cameron and Robin Len GAMMA Studios was a Toronto-based computer graphic design and animation company which focused on Creative Direction, Typographic Design and Digital Effects for Broadcast Television and Feature Films.

Their commercial clients included TIFF, "Disney Channel" international, CBC and CITY TV. Robin Len graduated from OCAD's PhotoElectric Arts program, the precursor to the Integrated Media program which I will resume Chairing in a couple weeks when my sabbatical ends.

5. In 2004 Robin Len was working for me on an artwork about my family home and memory architecture. This black and white "walkthrough" using branching Quicktime lead to my winning a CanWest Global Fellowship at the Banff New Media Institute. But before that award, in August, Robin was in a terrible bike accident very near to my family home. He was in a coma for 6 weeks, and emerged with extensive brain damage and resulting anterograde amnesia.

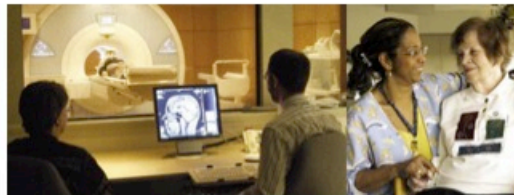


Long Crescent cinematic walkthrough, 2004,
produced with Robin Len.

6. My collaboration with Brian Richards began as a result of Robin's amnesia and its devastating effects. In 2005 Robin was living in a lock-down Alzheimer's ward. At that time, I discovered Dr. Brian Richards in a Globe and Mail article about Memory Link, the program he heads up at Baycrest for people with acquired brain injury. Our first phone call lasted over an hour and we soon began our collaboration.

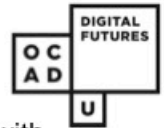


OCAD / Memory Link research / 2005 – 2009
Project-driven interdisciplinary assignments embedded in undergraduate course curriculum.

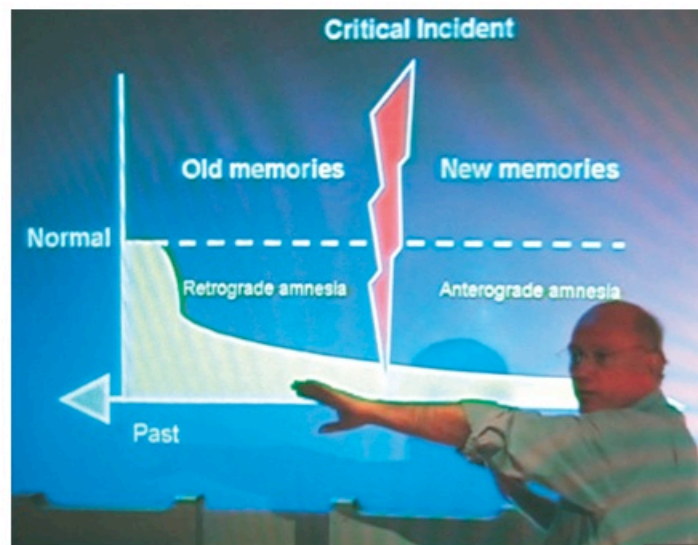


7. In this slide, Brian lectures to OCAD students in my Virtual Communities class about **Anterograde Amnesia** : - an inability to reliably retrieve new memories following acquired brain injuries. These neuro-traumatic events, such as head injury, aneurism, virus, or brain tumors, are different from degenerative age-related cognitive impairments or Alzheimer's. The amnestics are marooned in a narrow bandwidth of the extreme present, unable to recollect the events of days or even minutes before (episodic

memory) or to remember plans for the future (prospective memory). Other systems of memory and intelligence (procedural and semantic memory) remain intact and can be enlisted to offset problems, notably by special training to use external digital memory supports.



Anterograde Amnesia : following a brain injury, profound difficulty with storing and retrieving (explicit) memories. Intelligence, old memories, procedural memory systems are intact.
(Brian Richards, lecturing at OCAD)



8. Between 2005 and 2009, we worked on assignments built into the Virtual Communities course I team-taught with Professor Martha Ladly from the

Faculty of Design.



Virtual Communities, OCAD 2006.

Professors Martha Lady
(Design, below) and
Judith Doyle (Art, right)



User-participant
Jeff Steinhold from
Memory Link program
(Baycrest)



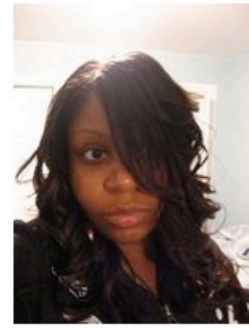
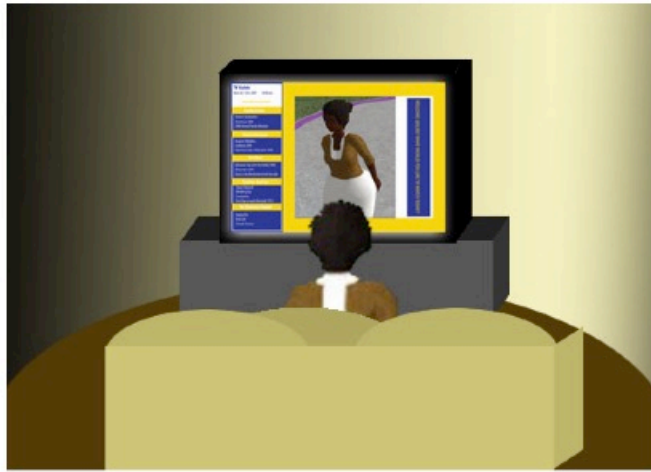
Dr. Brian Richards, Robin and other Memory Link clients attended classes at OCAD and provided information and feedback on student projects for art and design features for assistive memory technologies.

9. These included tools for remembering emotion, like this sketch application designed for the Palm Pilot,

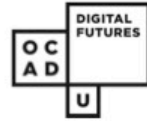
10. and projects for assistive avatars in virtual environme



Assistive memory avatar
Alicia Francis

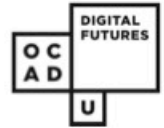


11. The avatar could be based on one's self. This avatar helps Marco and his friends coordinate their outfits for elaborate costume parties.



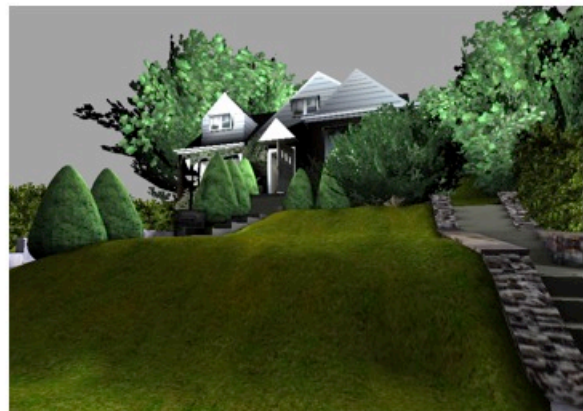
MARCO

12. Our practice at this time included memory projects for virtual environments, and social media collaboration tools.



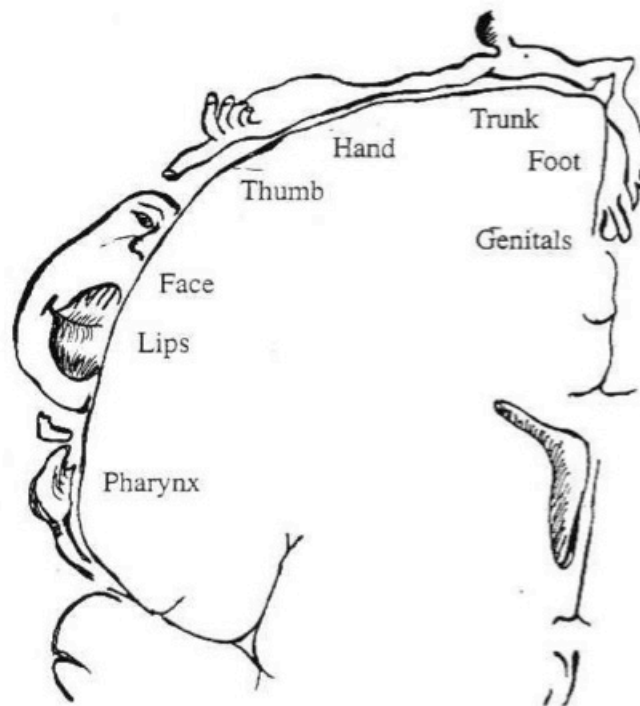
CanWest Global Fellowship, Banff New Media Institute (BNMI)

Dave Pelletier (seated - lead game designer),
Trent Noble (lead Maya animator), working with
Judith Doyle, 2005.



13. This site-specific installation for a media lab is a kind of faux-immersive display using everyday ubiquitous computers. In the Testbed program in Nuit Blanche, it had tens of thousands of visitors. Media installation is a focus of our curriculum in the Faculty of Art at OCAD, in both the Integrated Media and Sculpture/Installation programs.
14. This memory architecture I built in SecondLife includes streaming media – you may recognize this is the branching Quicktime video work I produced with Robin immediately before his accident. This project is about forgetting, how memory distills into simplified aspects of things and places. I still love to visit this house on SecondLife to relax and contemplate.

15. This famous map of the cortical surface of the brain where touch is processed shows a kind of scale model of how we experience our embodiment. This map is malleable and based on personal experience. For example, violinists – especially those trained from youth – develop much larger neural networks for the four fingers of the left hand, though the thumb area remains normal.

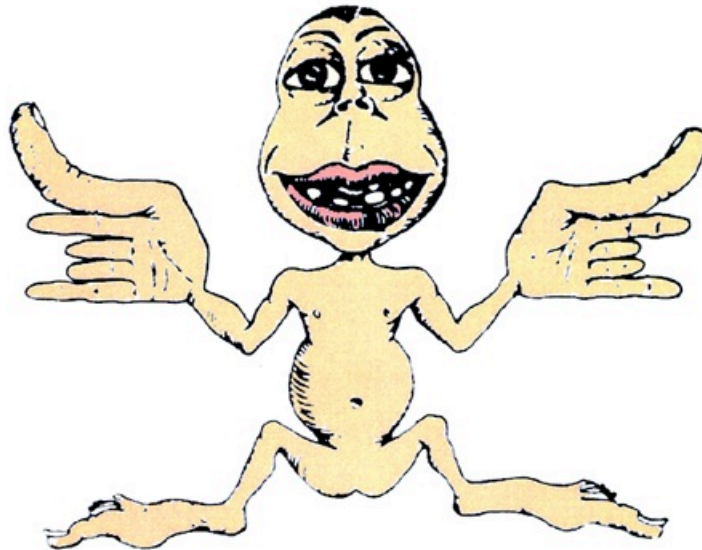


The somatosensory cortex receives sensations of touch

At Memory Link --

We are interviewing Memory Link clients about their experiences. We then creating visualizations based on quotes from the interviews about the experience of memory loss. The source imagery will be drawn from video footage of nature and urban life. This material will be altered using visual effects including colourization, animation, compositing/superimposition, speed control, text and motion graphics.

16. As Artist in Residence at Baycrest, I am working on strategies from the emerging field of neuro-phenomenology, working closely with Dr Brian, Memory Link, and OCAD postgrads. We ask, how can embodied creative aptitudes such as Robin's compositing expertise be leveraged to augment functionality in his other areas of life as a result of neuroplasticity, the brain's capacity to form new neural pathways?



Kandel, homonuculus

17. Robin has made incredible headway with his compositing, with a combination of computer/software access, ongoing assignments, youtube and DVD-based training and collaborative interaction. Robin lives outside the city in a home for severely brain-injured individuals, but the process of resuming compositing has had spillover effects on many cognitive, procedural and emotional areas, and this has happened very quickly.

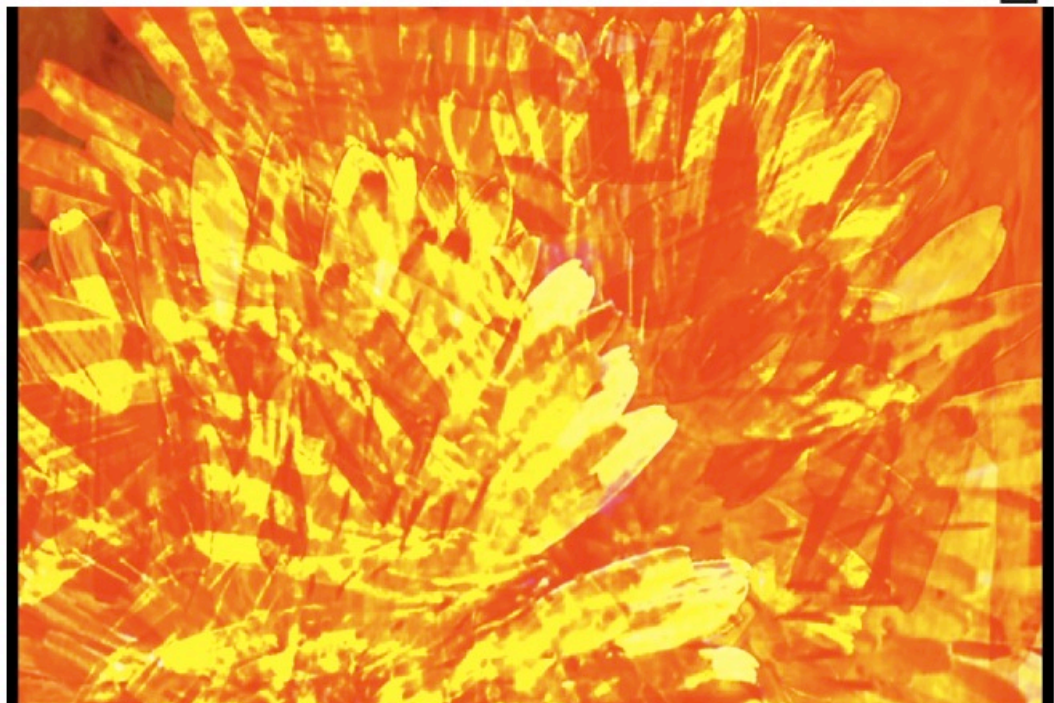
18. To quickly run through Robin's assignment :

Experiment with images using layering/compositing, colourizing effects or geometry to create a "surreal" mood.

Film images from nature to use as source footage. Represent "arborization" - this could be achieved by layering, colourizing effects, geometry or textuality



May 17, 2011

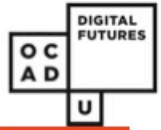


The "ocean of confabulation" effect - Animate text so that it "flows" on and off screen, using fonts of different sizes and opacities. ("occlusion

and inclusion" - Robin).



June 7, 2011



19. In the final movie in this recent series, which Robin produced earlier this week, he is beginning to utilize the 3D capacity of AfterEffects CS5 to manipulate text : this was a specific area of his expertise professionally, which I mentioned at the beginning of my presentation in the Media Television spot from the late 90s - long before AfterEffects was invented.

20. To summarize, in a nutshell, our strategies include

Compositing : layering and manipulation of film footage, still images and text, sometimes in counterpoint to music.

Remix : recombining existing media (music, images, movies) to create something new.

Collaboration : shared creative production, sometimes in person in real time, sometimes using collaboration tools and online environments.

Thank you! Judith Doyle (jdoyle@ocad.ca)

For more, see :

[my website : readingpictures.com](http://readingpictures.com)