Panel A3
Sala delle Colonne 2
Art and Technology in Digital Animation

Davide Benvenuti
Line stylization for 2D animation tools; reinventing Ronald Searle in the Digital Era

With this presentation I will discuss and reflect on 2D modern digital animation tool creation; I will also elaborate on the outcomes of my current research where I have been working on the development of modern pipelines and artist friendly tools; through an interdisciplinary collaboration between ADM in NTU, the **CACANi** project [http://cacani.org/] and with **MAGIC** Lab [http://magic.ntu.edu.sg/] .

Academic investigation on new approaches in the design of animated images, is a main area of interest in both animation and computer sciences. Technology has revitalized an interest in hand-drawn animation, by the simple fact that animators can create films at a fraction of previous cost and with a much reduced staff.

As technology becomes an integral part of any production, artist integrity can be challenged forcing researchers to look into how better new techniques can coexist and grow with traditional art making.

2D animation marries drawing and movement, generating images where both these aspects intertwine in an inextricable way, but it can rarely afford complexity of style; trading complexity of design with richness of movement; new technologies are giving new possibility to explore such complexity alleviating some of the more repetitive tasks.

The adopted framework is one that first goes back in time and study English illustrator and cartoonist **Ronald Searle**: also examining the work of the many animators and character designers that were heavily influenced by his aesthetics and his peculiar sense of caricature; and how this sensibility permeated the production of 2D animation for a long time with repercussions that stretch till today.

Starting with this retrospective analysis of Ronald Searle work: I then explore the possibility to bridge the gap between the creation of a drawing and the subsequent digital elaboration: investigating the integrated solution for the production of 2D animation, through the **CACANi** project, which has been developed in recent years in NTU.

Starting by simply questioning the use of a digital tablet instead then paper pencil we can argue that the strength of a digital process could, at times, be better served in ways that are seating with traditional and consolidated methodologies, hence a complete, and univocal, all digital or all traditional approach might not be the right choice; a mixture of both might be required, forcing to examine and revisit pipeline choices.

I will continue the presentation proposing a framework that incorporates different tools for the creation of 2D animation: presenting a solution that allows artists to stylize line work from different sources in a way that is similar to producing 2D animation traditionally and thus fully artist driven; with the intent to achieve a faithful graphic look that is harder to create in other way.

We also extend this method to lines extracted from 3D object that can benefit from the same treatment as the 2D lines thus creating a final frame where all the elements can be integrated seamlessly

Furthermore, images from our framework, that are either coming from 2D drawings or 3D objects can be further elaborated by refining retiming and exaggerating the animation, giving artists the possibility to edit and stylize the lines in a hybrid environment that takes advantage of analog pipelines more familiar to traditional artists.

I will end the presentation demonstrating how all this element can be integrated in a fully realized animation production.

Biography

dbenvenuti@ntu.edu.sg

Davide Benvenuti is an Assistant Professor of digital animation at NTU ADM School of Art Design and Media Singapore since January 2013.

He has started his career in animation in Italy Florence in the mid 1990

Graduated with master degree in Architecture at Florence University's with a thesis on: Industrial Design and Computer Animation; his career spans from television, advertising and feature films.

He has been engaged with Disney animation, Dreamworks, Nelvana and Ubisoft.

Among his credit list:

"Assassin Creed Black Flag", "Assassin Creed III"," Assassin Creed Revelation"; "Assassin Creed II" (Ubisoft Singapore); "Sinbad Legend of the seven seas"; "Sprit stallion of the Cimarron" with Dreamworks feature animation

He was with Disney animation Australia from 1995 till 2006 where he worked on many direct to DVD titles and feature film including "The jungle Book II"," Peter Pan Retour to Nederland", and "Bambi and the great Prince of the forest".

Prior to his engagement in Australia he worked in Italy for many local TV shows and advertising.

He contributed to the animation for Enzo D'Alo's feature films *How the Toys Saved Christmas* and *Opopomoz*.

He is currently working on his short film "Summer tale", part of his ongoing research on tool development for 2D animation.

Full credit list

http://www.imdb.com/name/nm0073045/