T_Visionarium is an immersive, interactive, multi-modal environment made of inflatable fabric. By enabling viewers to immerse themselves in virtual modalities, it explores the expressive potential of transcriptive as opposed to conventional interactive narrative. Navigation through the data sets dramatizes the televisual information archived in T_Visionarium's database. This strategy allows viewers to experience the sense of a wholly personalized authorship.

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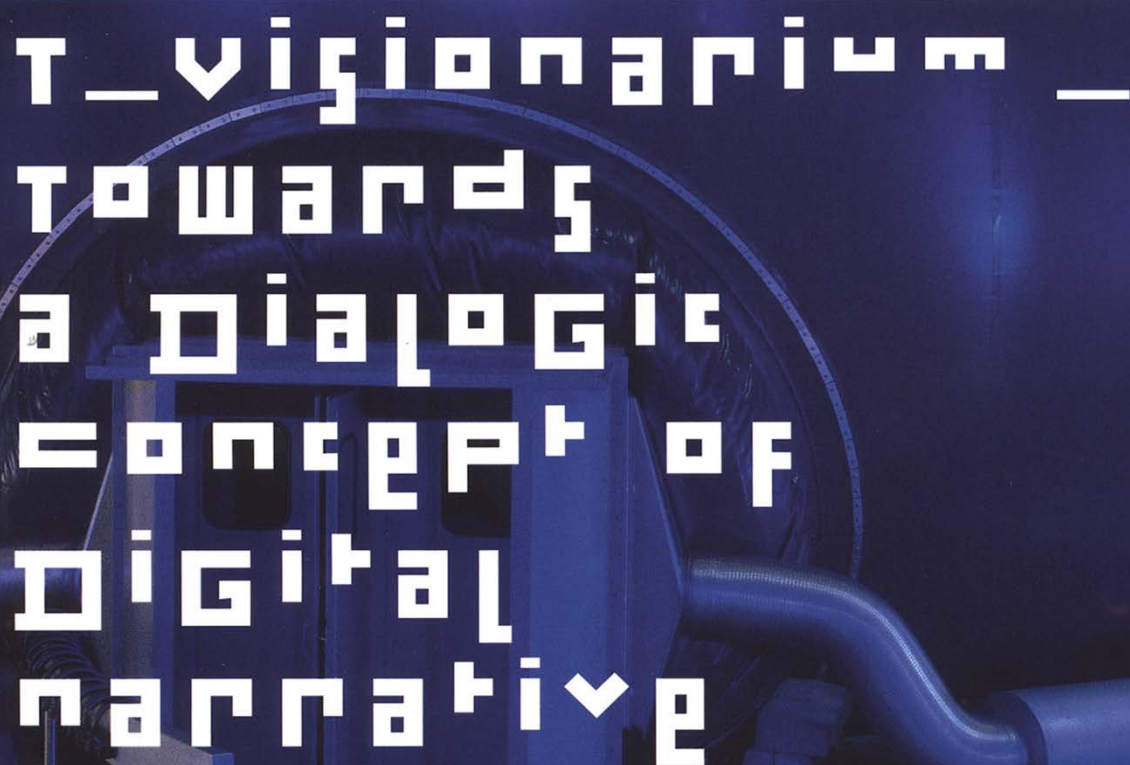
Neil Brown is a leading researcher in the areas of cognitive theory of art, creativity and art education and a member of the Center for Cognitive Issues in the Arts (CCIT) at the University of Bristol, UK. Professor Brown's research is centered on two projects. The first aims at establishing theoretical grounds for a philosophically neutral ontology of the artifact. The second seeks empirical evidence for the way in which children and adults' vernacular theory of art conditions their understanding of works and informs their practice.

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Dennis Del Favero, Neil Brown, Jeffrey Shaw, Peter Weibel:

T_Visionarium _ Towards a Dialogic Concept of Digital Narrative
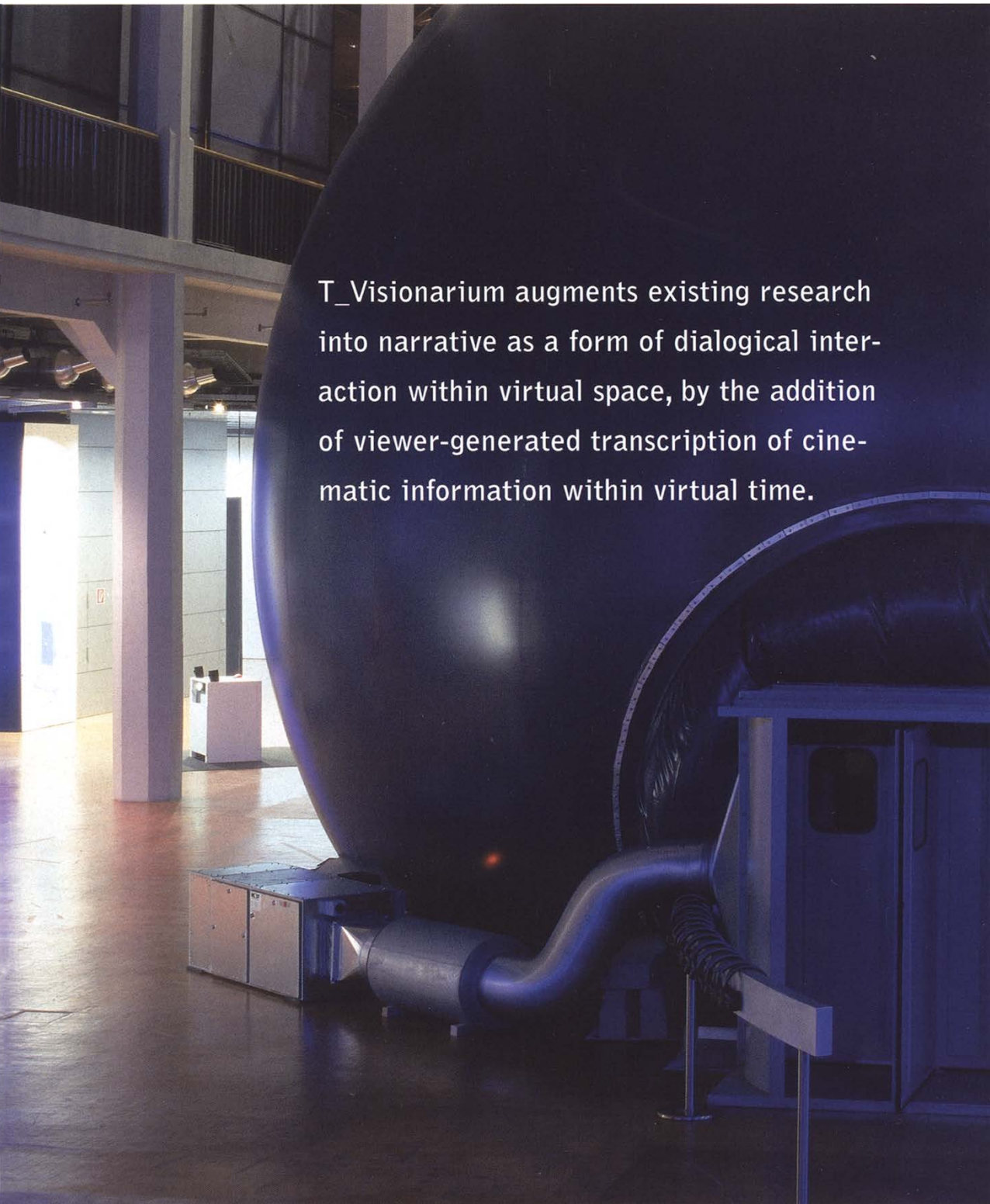
T_Visionarium augments existing research into narrative as a form of dialogical inter-action within virtual space, by the addition of viewer-generated transcription of cine-matic information within virtual time.

T_VISIONARIUM _TOWARDS A DIALOGIC CONCEPT OF DIGITAL NARRATIVE

Concept of the Dialogic

Currently the dominant position in aesthetics conceptualizes narrative as mono-temporal or linear. The digital, by contrast, is conceptualized as a-temporal or non-linear. This monochronic explanation reduces narrative to a mono-temporal process that fails to account for not only the potential of interactive digital narrative but also the workings of conventional cinematic narrative itself. In contrast the *concepts of dialogic and transcriptive* provide an understanding of narrative as a multi-temporal process operating beyond the structuralist notions of linearity and non-linearity. The dialogic refers to the interactive multiplicity immanent within the digital, while the transcriptive describes the cinematic capture and reconstruction of multimodal forms of information within virtual environments. Recently the authors explored these concepts as a model for the production of interactive narrative by means of an experimental study entitled T_Visionarium, Cinemas du Futur, Lille Cultural Capital, 2004.

T_Visionarium – Experimental Design

T_Visionarium is an immersive, interactive, multi-modal environment set within a dome 12 m in diameter by 9 m in height made of inflatable fabric [see Fig. 2]. It allows viewers to spatially navigate a televisual database in virtual time. On entring the dome viewers place a magnetic position tracking device, connected to cableless stereo headphones, on their heads [Figs 1, 3]. By means of a remote control interface, viewers are able to select from a range of parameters which arrange the televisual database according to thematic categories such as "dialog" and "crowds." The projection system is fixed on a motorized pan-tilt apparatus mounted on a tripod which projects televisual data onto the interior skin of the dome. The projection system is articulated to the tracking device so that viewers, by shifting their heads, move the large projected viewing window across the interior surface. This tracking device identifies the exact orientation of an individual viewer's point of view, which in turn controls the orientation of the projector so that it presents an image directly in front of where the viewer is looking. The audio-visual data streams are virtually distributed over the entire surface of the dome, so that the movement of the projection windows enables the viewer to navigate between these multi-modal data streams. The delivery software creates a spherical distribution of all the televisual data by their real time texturing onto a virtual polygonal model of the dome. In other words the stored televisual data sets are physically mapped over the dome surface such that each data set is allocated a specific window grid on the dome's surface. This enables viewers to navigate between each data set by merely shifting their point of view. This mapping strategy applies to both image and sound.

Seamless transitions between discrete image and sound events are handled by specific design parameters of the audio-visual delivery system. The acoustic delivery system is based on the use of RF (radio frequency) cableless headphones, which each visitor wears while inside the dome. Multiple audio channels are interactively mixed down for stereo RF delivery to all the headphones. The mixing of these channels is handled dynamically in immediate relationship to the movement of the pan-tilt projection system so that a fully spatialized sound-scape can be defined inside the dome architecture. This is directly linked to the distribution of the visual content. The mixing

of the audio, synchronized with the movement of the pan-tilt projection system, allows a fully spatialised soundscape inside the dome to be synchronized with the distribution and experience of the visual content. These same satellite data streams are recorded onto a hard disc system and sorted within a database. By the application of a recombinatory software matrix, unprecedented narratives are reconfigured from this database by the viewer. By means of their interaction with the matrix interface and simultaneous the movement of their heads and projection window individual viewers originate unique performances on behalf of a larger viewing public of up to eighty persons. This strategy allows viewers to experience the sense of a wholly personalized authorship. To this extent the recombinatory matrix produces a deeply interactive authorship, emergent in the encounter between the viewer and matrix in multitemporal time.

Fig. 1: Viewers, by shifting their heads, move the projected window across the interior skin of the dome.

T_Visionarium – Experimental Methodology

T_Visionarium, by enabling viewers to immerse themselves in virtual modalities, explores the expressive potential of trans-criptive as opposed to conventional inter-active narrative. It allows new recombina-tory narrative content to be generated by the viewer. Navigation through the data sets dramatizes the televisual information archived in T_Visionarium's database. These data sets are reconstituted across the interior skin of the dome under the converging impetus of viewer and matrix and are encountered as emerging multi-temporal events. Processing is animated by the recombinatory parameters of the interactive software. It is based on recor-ded broadcasts from 48 global satellite television channels recorded sequentially in 30-minute intervals over a single 24 hour period. This data is post-processed by the matrix in ways that hyperlink the variegated data sets in virtual time to form a large scale database. Based on deep content authoring, which allows high levels of semantic and abstract classifica-tion, the matrix sorts the data according to characteristics of language, movement, color, speech, composition, lighting and pattern recognition as organized by iden-tifiers originating as functional agencies within a conceptual framework [1]. The viewer explores the results of these recom-binatory searches by moving the projec-tion window across the dome screen. Sele-cting the parameter "dialog," for exam-ple, ushers forth intersecting cascades of current affairs, sports, features, life style, historical, scientific, musical and anthro-pological episodes of "dialog" across 48 channels, a multiplicity of languages, numerous time zones, and a heterogeneity of cultures within the simultaneous time-frame of the visualization apparatus.

The recombinatory matrix unravels these convergences of multi-modal data at tem-poral levels of intensity, archival density and extensiveness that only become recog-nizable as they coalesce in the complex time projected across the dome. Thus, with changes to their point of view, vie-wers activate a powerful navigational matrix that produces a directional flow of information in which the expressive meaning of the data is boundlessly trans-cribed. The profoundly multi-temporal logic echoes the theoretical architecture implicit in digitized audio-visual data [2]. This logic is imperceptible in convention-al viewing frameworks, which can only recover time analogically by scanning and juxtaposing whole fragments. At best, conventional viewing establishes symmet-rical patterns of temporal resemblance among broadcast items that are based on syntactical properties patent within the data [3]. T_Visionarium's narrative moves beyond this logic of resemblance.

Fig. 2: T_Visionarium is set within a dome 12 m in diameter by 9 m in height made of inflatable fabric.

It is able to unfold new content within a virtual infosphere of digitized images and sounds whose patterning is freed from the constraints imposed by the analogical, or representational, redelivery of information. Sifting through digitized televisual data the viewer unravels sub-visible links. By cutting the multi-modal structure of prerecorded information at a number of aesthetically significant joints the recombinatory matrix coalesces new audio-visual streams into episodes that can be functionally reassigned a narrative. Reassignment is made at the discretion of the viewer within the infinite latitude extended by virtual time. As a consequence narrative becomes a complex event which interlaces a number of intersecting temporal and physical navigations. The viewer, by selecting a specific parameter, can refine these streams by zooming into a specific current within the streams. Once these new virtual time currents are projected across the dome, the viewer can then process them in real time by physically navigating the projection window across the surface of the dome. This interweaving of matrix and viewer navigation precipitates the emergence of unprecedented narratives. In this respect T_Visionarium opens interactive cinema to a multi-modal aesthetic of a kind that is currently confined to the uni-modal contexts such as text-based chat rooms. It augments existing research into narrative as a form of dialogical interaction within virtual space by the addition of viewer-generated transcription of cinematic information within virtual time.

Meta-model Strategies

The T_Visionarium methodology provides a meta-model for dialogic and transcriptive strategies that is appropriate for the semantic and aesthetic reformulation of databases that contain any and all kinds of audiovisual information. By sifting
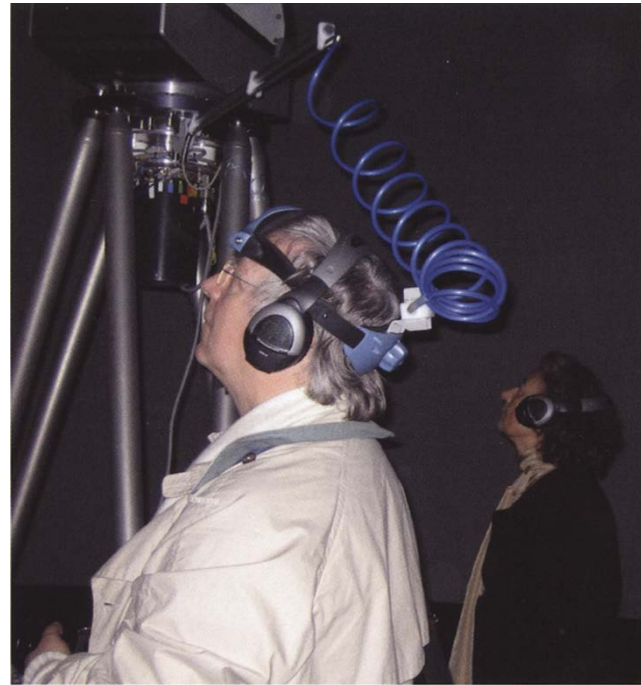

Fig. 3: Each individual viewer originates his/her personalized narrative by navigating a televisual database in virtual time.

through heterogeneous and seemingly inchoate and unrelated data, its transcriptive narratives create original and often unexpected logics of data interrelationships. This "media ecology" recycles waste data into new sensory fields of experience and communication. At an individual level applying transcriptive narrative to materials that are already bound together in proto-narrative formations – such as family-photo and moving-image archives – reveals the profound recombinant potential of transcriptive narrative, especially revelatory to those who are its protagonists.

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