

# Performing data: the Circus Oz Living Archive

David Carlin<sup>1</sup>, Jane Mullett<sup>2</sup>

<sup>1,2</sup> RMIT University, Melbourne, Australia, david.carlin@rmit.edu.au

## EXTENDED ABSTRACT

This paper presents initial work on the Circus Oz Living Archive, an interdisciplinary research project funded by the ARC through, in the first instance, a successful LIEF grant (as part of the larger *AusStage Phase 4: Harnessing collective intelligence and pioneering new visual methodologies for innovative research into Australian live performance* project led by Flinders University), and secondly, a successful Linkage proposal in partnership with Circus Oz, the Australia Council and the Performing Arts Collection of the Victorian Arts Centre Trust.

This project is creating and analysing an experimental prototype for an online participatory 'living archive', building upon the Circus Oz collection of performance and rehearsal video documentation, so as to drive innovations in repertoire development, performance research and audience interaction.

The project applies theoretical perspectives and methods from digital media studies, allied with research in computer science, to create new knowledge of the documented heritage and ongoing artistic practice of one of Australia's most significant, internationally acclaimed cultural bodies, Circus Oz, and thus provides a model of digital engagement for the performing arts industry.

The 'living archive' prototype is being developed hand-in-hand with the growth of a variety of interconnected Circus Oz knowledge communities [1] — performers and other circus artists both within and outside Circus Oz, managers, audiences, researchers — who, as the prototype comes online, will add information (video, sound, pictures, text, tags, textual commentary, open API data mash-ups) to build upon the diverse records of Circus Oz videos. In performance terms, the prototype can be seen as an online extension of the idea, which is central to Circus Oz's artistic philosophy and business strategy, that audience participation is integral to the meaning of the show.

The project posits a model where the concept of the 'archive' is opened to fully embrace the logic of social media (Web 2.0). 'Web 2.0' [2] refers to the particular properties of recent internet services and technologies, which leverage social relations of peer-to-peer interaction, and foster the sharing and co-creation of digital media objects (composed of text, audio, graphic, photographic and/or video elements). Web 2.0 technologies facilitate the building of shared culturally significant data sets, through the aggregation over time of the discrete contributions of individuals connecting to form fluid knowledge communities.

Specifically, the project is:

1. assessing issues arising in the formation and sustainable future development of a web-accessible digital repository for a performing art company's video-documentation;
2. creating and probing, by a process of prototyping, a Web 2.0 interface to the digital repository that facilitates peer-to-peer engagement with the video material by a range of stakeholders, and therefore the growth of Circus Oz-related online knowledge communities; addressing problems including:
  - a. effective linking of other digitised archival material (such as Circus Oz season programmes) to the video collection;
  - b. development of frame-by-frame visual search mechanisms to facilitate a rich diversity of user interactions, both public and within Circus Oz, with the video data;
  - c. effective combination, in search interface, of authoritative metadata, social tagging, and automatic annotations;
3. analysing the impact and use-value of the developing 'living archive' prototype for Circus Oz repertoire development
4. testing the assumptions embedded in these actions by facilitating research using the built 'living archive'.

Circus Oz is an Australian icon, an internationally influential artistic organisation. It has played a leading role in the cultural life of Australia, from its trailblazing experiments in contemporary circus in the late 1970's to its current place as an acknowledged major performing arts company. Circus Oz is also thirty years old, and began during the decade that video technology became widely commercially available. Circus Oz is not alone in having a huge pile of video data to deal with. This is a ground-breaking project in thinking about what to do with all that footage.

The willingness of Circus Oz to open its video archives in this way is exciting. Its bravery in the embrace of new ways of communicating with its audience makes this project inspiring.

This project investigates i) how the circus space can be augmented through expansion into the digital networked environment, and ii) how the Circus Oz's video archives can be utilised within a digital medium.

It interrogates the intersection between the raucous circus space that welcomes audience interaction in the ring and the online 'living archive' that welcomes interactive participation - creating a socially mediated online space where Circus Oz information/creation can be augmented, annotated, explained, mashed-up and (re)created, engendering new material for the live show, which will find its way into the online circus space.

As Circus Oz Artistic Director Mike Finch has noted:

A modular multiple-choice video archive is a much more honest and anarchic reflection of Circus Oz than a polished and edited documentary, and acknowledges that there are an infinite number of ways to view the same constantly growing set of events and people. Also because Circus is inherently non-narrative and modular: act by act, it means that the order that images are viewed in is arbitrary to some degree. [3]

The key structural idea underlying the archive, which Finch alludes to here, is that each Circus Oz performance video recording can be divided up into discrete clips, as the performance itself is structured as a succession of distinct skill-based acts (tightwire, clown orchestra, hoop diving and so on) linked with transitions. Each clip can be given multiple tags and the archive made searchable via these tags. In this context, this divisibility, what Web 2.0 describes as 'granularity' offers distinctive affordances for the archiving of circus performance as against what may be possible with the more narrative-based performing arts forms of theatre, opera and ballet. As Miles notes:

In the context of ... multilinear, interactive web based material, a premium is placed on formats, genres, or systems that support a high level of granularity because such systems offer multiple possibilities for (or of) connection and reconnection. [4]

Circus has had a long dalliance with taxonomy, and has used film and video, and now the web, as a tool to pass on performance information. It is a format of information exchange that is familiar to the sector. This project investigates how this may blossom into an online conversation with many different communities.

In the first phase of the project, we are deploying the new AusStage mobile digitization laboratory, with its state of the art SAMMA Solo technology, to migrate the entire Circus Oz collection of video data — over 700 hours of performance, rehearsal, backstage and interview footage — into digital formats for archiving, distribution and rapid remote-access.

There are a number of challenges we currently face in realising the concept of the 'living archive', which is situated between the relatively fixed standards of description and control employed in the traditional archive and the supposedly open, porous and carnivalesque world of user generated content and Web 2.0 systems. The dynamism and functionality of the social media layer of the living archive, that allows knowledge communities to 'write into' (in various media forms) as well as 'read' (or view) the archive, needs to be supported, we argue, by the extension and innovative application of computational research [5, 6] into the automatic segmentation and content-based visual searching of the video data so as to facilitate diverse and creative interactions with the archived materials.

If the traditional role of the archive has been to 'remember' objects of cultural value – to preserve them so that they are not lost and forgotten, we posit that the digital networked environment enables a new form and function for the 'living archive' as a collective creative space in which 'memory becomes less what we *have* assembled and locked away and more what we *can* assemble and share' [7].

## ACKNOWLEDGEMENTS

The authors would like to acknowledge the contributions of colleagues Associate Professor James Thom, Associate Professor Laurene Vaughan, Professor Peta Tait and Adrian Miles, who, along with Dr David Carlin, are Chief Investigators on the ARC Linkage project (2010-13), *The Circus Oz Living Archive: developing a model of online digital engagement for the performing arts*.

## REFERENCES

1. Jenkins, H 2008. *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press, revised edn.
2. O'Reilly, T. 2005a. *What is Web 2.0: Design Patterns and Business Models for the next generation of software*. O'Reilly website, 30th September 2005. O'Reilly Media Inc. Available from: <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>, accessed 20 June 2010.
3. Finch, M., 2007, *The Circus Oz Mash-Up Video Archive*, internal discussion paper, Melbourne: Circus Oz
4. Miles, A. 2005, "Media Rich versus Rich Media (Or Why Video in a Blog is not the same as a Video Blog). Proceedings of BlogTalk DownUnder. Sydney.
5. Tahaghoghi, S.M.M., Thom, J.A. and Williams, H. 2002. "Multiple Example Queries in Content-Based Image Retrieval", *String Processing and Information Retrieval: 9th International Symposium, SPIRE 2002*, Lisbon, Portugal, September 11-13, 2002. Springer Lecture Notes in Computer Science, Vol. 2476, pp. 227-240
6. Volkmer, T., Thom, J.A. and Tahaghoghi, S.M.M. 2007. "Modeling Human Judgment of Digital Imagery for Multimedia Retrieval", *IEEE Transactions on Multimedia*, Special Issue on Semantic Image and Video Indexing in Broad Domains, Vol. 9, No. 5, August, pp. 967-974.
7. Weinberger, D. 2007. *Everything is Miscellaneous*. New York: Times Books.