

Conference Report by Melanie McMahon and Anna-Sophie Jürgens

ZOOMPOSIUM

Performance, Science and Technology

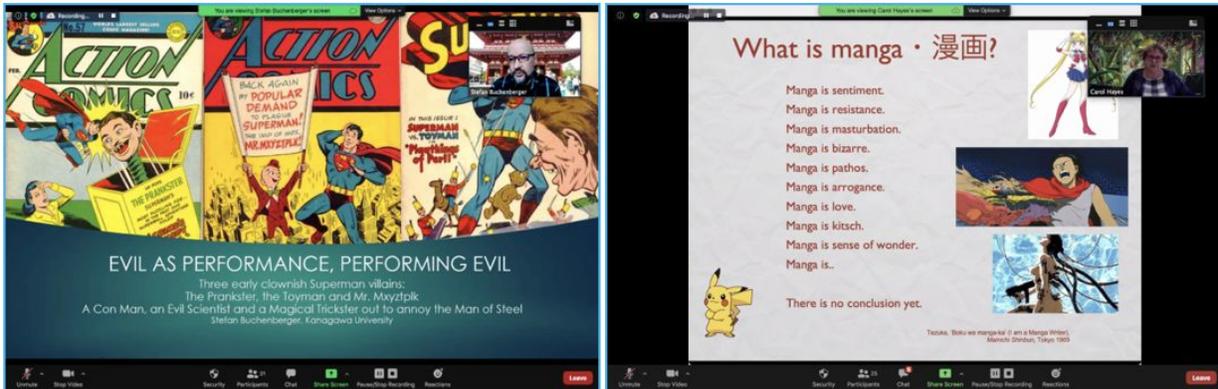
27 November 2020, Australian National Centre for the Public Awareness of Science

Techno-wizards, science-maniacs, characters called Hokus and Pokus, digitally resurrected Ghosts, potentially inexistent aliens... and many other fascinating cultural creatures emerging from the intersection between science, technology and fantasy populated the virtual meeting space of the Australian National Centre for the Public Awareness of Science (CPAS) on 27 November 2020.

Our “zoomposium” – a one-day online conference – on the theme of “Performance, Science and Technology” featured a great line-up of speakers from different disciplines (from Australia, Japan and the US), who share a common interest in the intricate interplay between the realms of science and technology in popular culture, and thus in the ways, pop culture and popular entertainment bridge the so-called “two cultures” of the Sciences and Humanities. Exploring an array of historical and contemporary examples, drawing from comic book stories, stage performances, visual media, museums displays and popular film, among others, in their academic presentations speakers examined the ways popular culture has played an important role in shaping cultural ideas of science and in exciting the public imagination about scientific themes and discoveries.

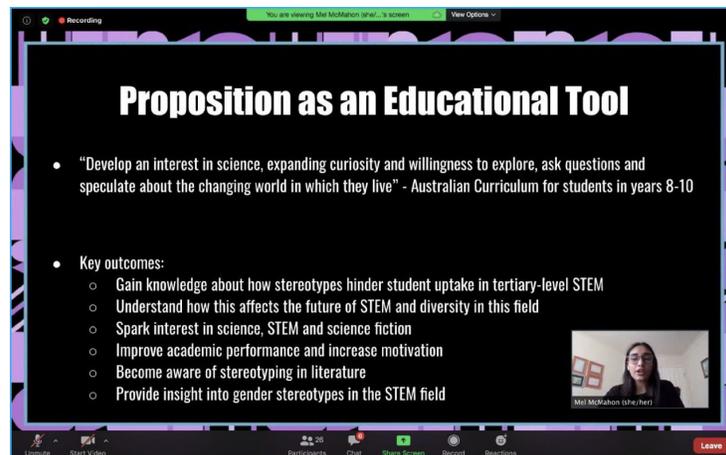
From comic book science to a technology-driven performance of science and art

The first two presentations – by **A/Prof Carol Hayes** from the ANU and **Professor Stefan Buchenberger** from Kanagawa University (Japan) – focused on *comic* science and performance in comic book stories, graphic novels and manga art. They showed us some intriguing ways science is used for both comic effects and weird weapons in early comic book stories, and shed a light on “viscerally presented” science in Japanese sequential art. While early Japanese manga engaged with science through a “slapstick style of witty images”, clownish characters like Mr Mxyzptlk, the Toyman and the Prankster, it turned out, combine elements of magic and the circus with the cultural stereotype of the mad scientist.



Screenshots from the academic presentations by Prof Stefan Buchenberger and A/Prof Carol Hayes.

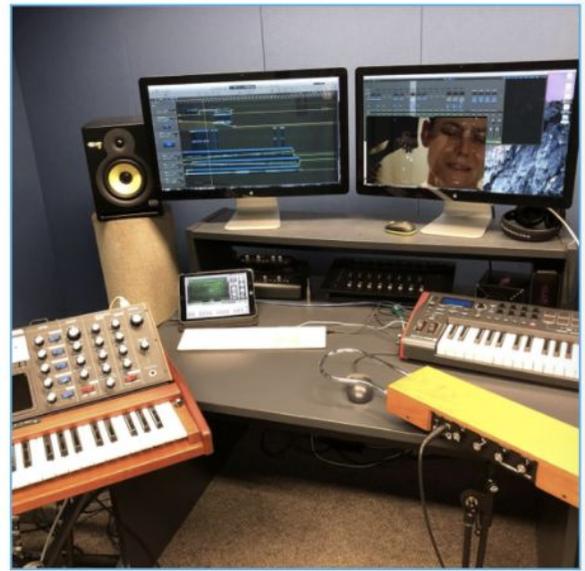
Presenting a mosaic of examples, these two talks provided detailed insights into the way in which pop-cultural interpretations of scientist characters add their quota to the public discourse of science. In doing so, they contributed to, and expanded on, our introduction, in which we discussed both what “clown science” can be defined in comic book stories (see [here](#) for an example) and what role stereotypes of scientists can play beyond fictional stories. In this regard, the types of complex stereotypes were outlined and the harms of such were explored in a way that can be manipulated to act as an educational tool to improve the motivation of STEM students. This prompted meaningful discussion between attendees about the balance of gender within the STEM field.



In the second part of the zoomposium we launched the recently published edited collection [Circus, Science and Technology: Dramatising Innovation](#) (Palgrave Macmillan, 2020), a book that explores to what extent the engineering of circus and performing bodies can be understood as a strategy to promote awe, how technological inventions have shaped circus and the cultures it helps constitute – and how much of a mutual shaping this is. As the editor, **Dr Anna-Sophie Jürgens**, and the director of the ANU Humanities Research Centre, **Professor Will Christie** (who set the frame for this interdisciplinary publication by supporting the 2018 conference [“Imagineers in Circus & Science”](#) from which the book emerged) showed

in their speeches, the book is a contribution to the popular history of technology, the cultural history of engineering, and the history of popular performance. (Studying) circus contributes to a better understanding of the globalised modern culture of technological wonder, and shows how circus informed modern sensibilities, and predates contemporary ones – how it is formative for the present and the future.

We celebrated the book's launch with an extraordinary performance, which was created *especially* for this event: a Theremin performance, composed, recorded and designed by Kit Devine (ANU School of Art and Design), Alec Hunter (School of Music) and Charles Martin (Research School of Computer Science). The Theremin is an electronic musical instrument controlled *without physical contact* by the performer. The eerie Theremin sound is used in television shows, popular music and film soundtracks. For instance, it appears in *Mars Attacks* and *The Day the Earth Stood Still* (the old film), *Hellboy* and *The Delicate Delinquent*, a film featuring a clownesque Theremin scene with Jerry Lewis and man in a lab coat.

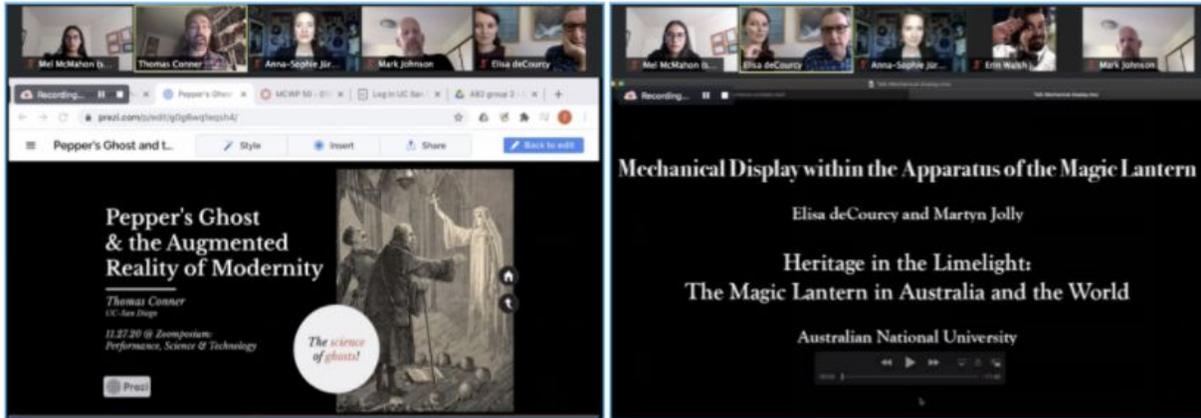


Our Theremin performance at work! Photo by Alexander Hunter.

The Theremin performance and video created by our performers referred to these themes, themes explored in the *Circus, Science and Technology* book, and themes studied at CPAS (including science in Sci-Fi. Invented in 1920 (100 years ago!), this instrument beautifully links pop culture, science, technology and art.

On the evolution from the magical and fictional to the scientific

After the Theremin performance the zoomposium continued with three presentations focusing on technologically based entertainments from around 1900 – a technologically informed age of wonder – and their contemporary reimagining and reappearance in digital shapes. **Thomas Conner** discussed the nineteenth-century stage illusion Pepper's Ghost as an early augmented-reality media system; **Dr Elisa deCourcy and A/Prof Martyn Jolly** investigated how new mechanical and optical apparatuses (above all Magic Lanterns) shaped new performative conventions, audience expectations and (thus) theatrical culture; and **Dr Ruth Richards** examined the cross-references and interdependencies between (early) animation and the world of the circus. They all highlighted that our new media is not that new at all, and that tradition does not mean stagnation.



Screenshots from the academic presentations by Thomas Conner, Dr Elisa deCourcy & A/Prof Martyn Jolly and Dr Ruth Richards



Finally, the last part of the zoomposium was dedicated to the question of what progress at the interface between popular culture, science and “the public” means in a cultural context where it is unclear where science ends and fiction begins and how much of the latter is represented in the former. **Dr Rebecca Hendershott** discussed the ways the idea of technological advancement is transported through visual representations of prehistoric hominids; **Dr Yuji Sone** explored the unique form of storytelling or fabulation accompanying, if not embodied in, Hiroshi Ishiguro’s anthropomorphic robotic machines, humanoids and androids; before **Dr Brad Tucker** took us into outer space by asking how fictional portrayals of aliens have impacted the search and increase of technology in the search for them.

Evolution = Progress?



Hiroshi Ishiguro's android science:
The fabulation of 'upstream engagement' and entertainment



**ALIENS - SCIENCE FICTION AND THE
SEARCH FOR THEM**



CPAS' first zoomposium on "Performance, Science and Technology" was a vibrant event with extremely interesting presentations and lively discussions. We had about 78 registrations and about 30 participants in each of the morning sessions; the afternoon sessions had about 20 participants each. Although an online conference can hardly be compared to a 'real' live event, the quality of the academic presentations and discussions and the active interaction was very enjoyable and stimulating. We would like to thank all our speakers and participants for this invigorating and exciting day!

Today's sym/zoomposium was excellent. The focus and thread between speakers was super. I think this nexus between science and pop culture is exactly where good science communication to the public will be unveiled. It reveals deeper truths about us as people and culture and reveals the questions we sometimes overlook. I look forward to whatever comes next. – Dr Eroia Barone-Nugent, Australian National University

For more information, please get in touch with Dr Jürgens: anna-sophie.jurgens@anu.edu.au
You can find our forthcoming events [here](#).