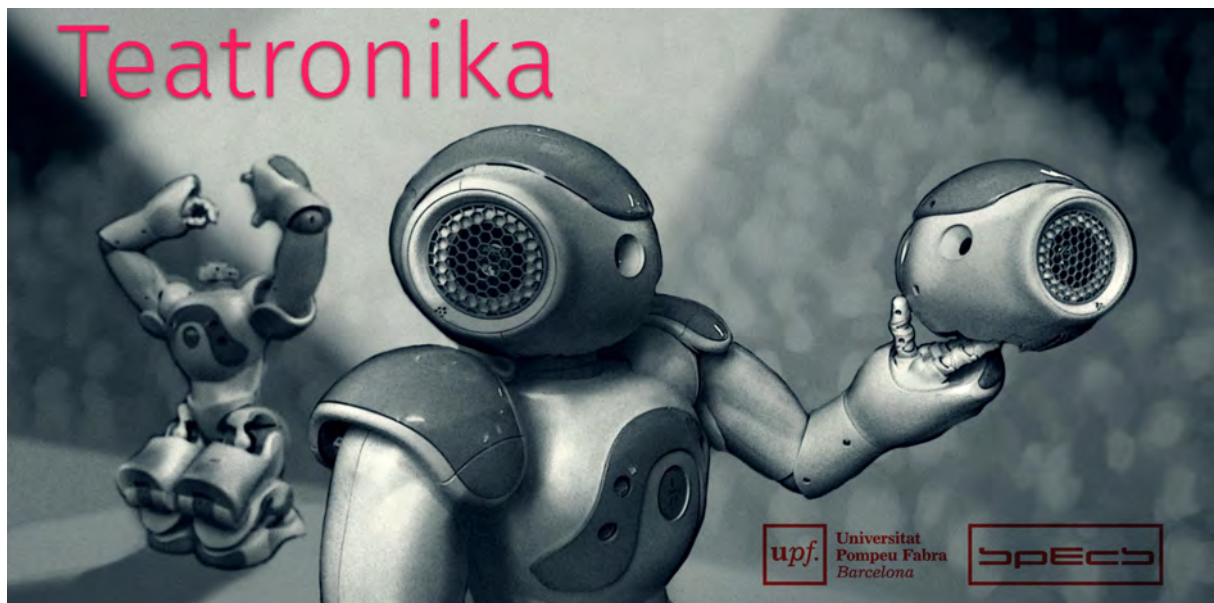


teatronika.org

Robotics for society, culture and arts



An interdisciplinary project
about the role of robotics
in society, arts and culture

by "Associació de divulgació científica i cultural Teatronika"
with the collaboration of
University Pompeu Fabra (UPF)



radio 3



Introducing Teatronika

Teatronika is an interdisciplinary project initiated by Martí Sánchez-Fibla (UPF) at the intersection between performing arts, theater and robotics, which seeks to investigate and rethink the role of robotics in our society and in particular, in culture and arts.

One of the main practical aims is to generate and develop software and content to produce performances and plays performed solely by robots / machines.

To fulfill this purpose **Teatronika** organized a first edition of a short script contest back in 2015 for four robots with the support of Radio 3 and FECYT¹.

A jury including among others, Miquel Barceló, Ramón Lopez de Mantaras and Ricardo Iglesias, selected 10 winning scripts from 112 received. Four of the awarded scripts were then performed live with 4 NAO robots at the CCCB (November 2015).



One of the winning pieces of the 2015 edition has been presented in the robotic shorts competition (ROS Film Festival) and has won the second prize in the category of real robots: "A hole in the Arena" by Hugo Álvarez².



¹ <http://www.rtve.es/radio/radio3/concurso-teatronika/>

² Link of the video can be found under ROS Film Festival page searching for Teatronika

Teatronika, the book

Teatronika has published a compilation book of 130 pages including:

- 4 essays by Miquel Barceló, Ramon Lopez de Mantaras, Ricardo Iglesias and Roc Parés.
- 9 winning scripts of the 2015 script contest.
- 1 research dossier by Beatriz Liebe and Martí Sánchez-Fibla

Miquel Barceló was a Professor in the Computer Science faculty (FIB, UPC, now he just retired) and a specialist in Science Fiction. In his essay Miquel explains us different roles that robots have taken in science fiction, including the role of performers, and comments on his experience in participating in Teatronika.

Ramon Lopez de Mantaras, director of the Artificial Intelligence research institute (IIIA, CSIC) introduces us to the state of the art of robotics and Artificial Intelligence and future insights of where all the field is going.

Ricardo Iglesias and Roc Parés are media artists very involved in producing artistic pieces that include robots. Ricardo exposes an historical overview of the origin of robots and robot societies. Roc explains to us his pieces involving robots, including one piece that was part of the show Teatronika, "Self and Other".



Teatronika, the show

Teatronika has produced a one hour show, presenting original pieces made in purpose for being performed by the robots. Robotic performances are in an experimental stage, thus the show mixes the robot performances and small interventions presenting thoughts and experiences around the themes of robotics, neuroscience, arts and culture.

The show has been presented in the following events:

- June 2016, Music Hack Day at the Sonar Festival, Barcelona
 - November 2016, CCCB, Barcelona (Show lasted 1hour and 20min)
 - September 2017, TNT Theater Festival, Terrassa (Show reduced to 50min)
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- "A hole in the sand", Hugo Álvarez
 - "I+I" de David Pousada. Veu: Àngel García-Cerdaña
 - "Self and Other", Roc Parés and Martí Sánchez-Fibla
 - "Artificial Paradise", Pedro Pablo Picazo
 - "The re-insertion", Gerard Freixes

Credits:

Idea and realization: Martí Sánchez Fibla

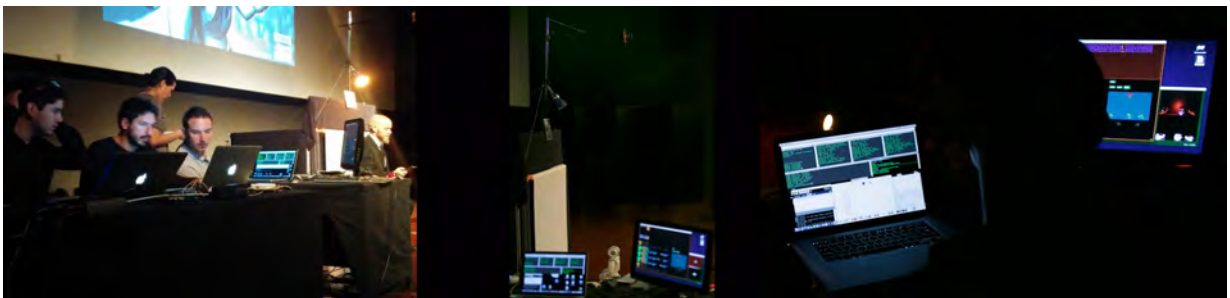
Scene director: Beatriz Liebe

Voice: Àngel García-Cerdaña

Robots: Capri, Dani, Xavi

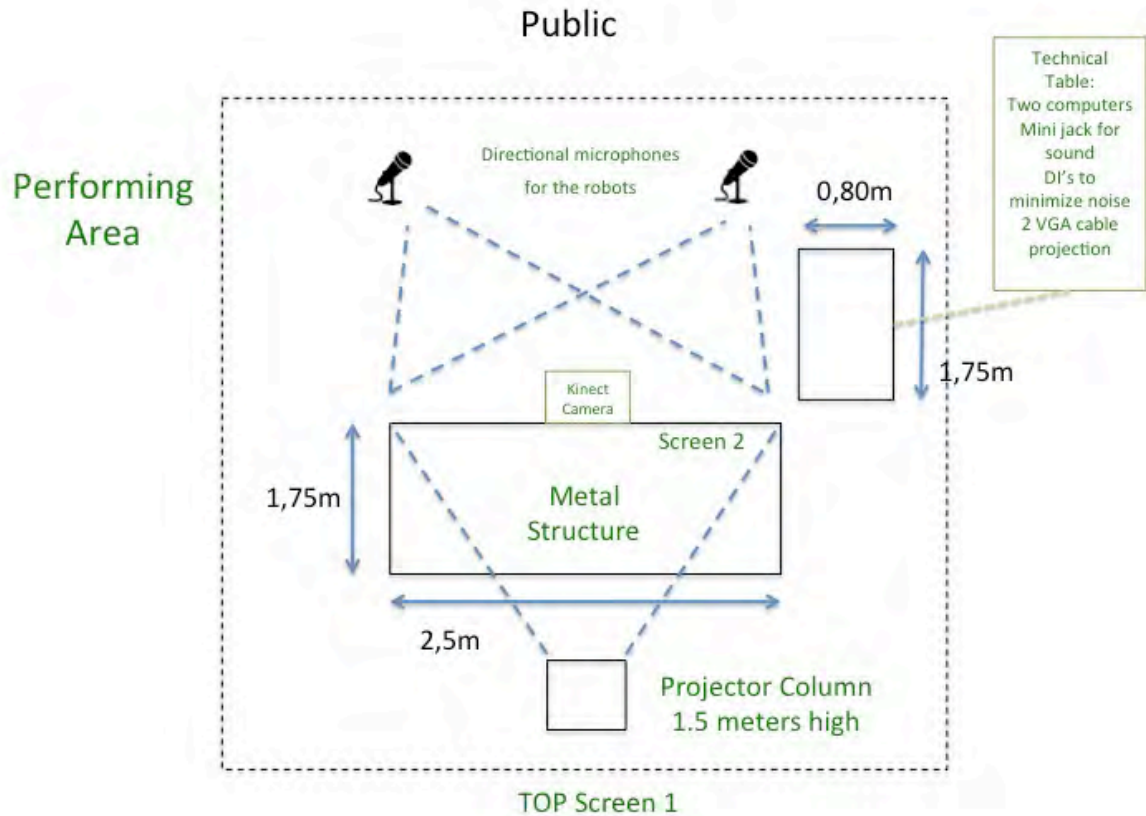
Music and sound: Sytse Wierenga i David Dalmazzo

Scenography and technical support: Alex Escuredo



Technical Considerations of the Show

In the following we present shortly the technical requirements of the show.



Resources provided by Teatronika:

- 4 NAO Robots
- A metal structure for supporting Kinect camera that tracks the robots.
- 3 computer controlled lights
- Two Computers for controlling the robots, audio and visuals
- One projector for the screen in the metal structure (SCREEN 2).

Resources needed in place:

- Audio table and Mini jack cable for the audio output of the computers.
- Two directional microphones to cover the area of the robots and amplify its voice which comes from small loudspeakers in the robots
- One top projector for a top screen.
- VGA cable to the technical table for top screen visuals (SCREEN 1).

Ideal Situation for the show is a small semi-circular tier for the public with around 80 seats. In that case microphones for the robots and top projection may not be needed and creates a better close and intimate experience.

Contact: Martí Sánchez Fibla



Martí Sánchez-Fibla is a researcher in cognitive sciences, artificial intelligence and neurorobotics at the SPECS (Synthetic Perceptive, Emotive and Cognitive Systems) laboratory (now at IBEC) and also belonging to the Artificial Intelligence group of the University Pompeu Fabra (UPF). His interests in scientific outreach bring him to realize the project Teatronika, with the aim of experimenting with robots as the only actors of theatrical and performance art pieces.

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Contact: Beatriz Liebe Masferrer

Beatriz Liebe Masferrer is founder and member of the association “L’altre festival” which organizes an international cultural event connecting performing arts and mental health and seeking to involve, promote and exhibit performing arts among people with mental illness. Beatriz is at the moment director of the “Centre Civic Baró de Viver” where she runs different cultural and social projects. She is also founder and active member of the “Associació de divulgació científica i cultural Teatronika”.

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