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Conversations: The Data Route

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Press Release

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World-Processor (Ingo Günther, 1989 – 2016 ©1989/2016 IngoGunther.com and NovaRico.com)
Photograph credit: Gunnar Knechtel

Explore the world of data with *Big Bang Data* at ArtScience Museum

First major art exhibition in Singapore that asks what data means for all of us

Singapore (18 May 2016) – Come 21 May, ArtScience Museum will unveil *Big Bang Data*, an exhibition that shows how the global information explosion is radically transforming society and culture.

Hailing from the Centre de Cultura Contemporània de Barcelona (CCCB) and Fundación Telefónica in Spain, *Big Bang Data* is making its Asian premiere at ArtScience Museum, after travelling from Barcelona to Madrid, Buenos Aires, London, and Santiago. The exhibition is comprised of a series of works from its first edition in Barcelona, projects introduced at the presentation in London, and specially curated sections which tell the story of Singapore's unique relationship with data.

Curated by Olga Subirós and José Luis De Vicente, *Big Bang Data* takes an interdisciplinary approach to the culture of the 21st century. It explores the far-reaching transformations of the digital age, and addresses the areas of friction that these changes are introducing in within culture, science, technology and society.

Visitors will discover the science of data through large-scale immersive installations, contemporary art projects, historical artifacts, technology prototypes and cutting-edge design. It features some of the most respected artists working internationally today, including **Ryoji Ikeda, Timo Arnall, Aaron Koblin, James Bridle, Heather Dewey-Hagborg, Eric Fischer, Christopher Baker, Ingo Günther, Erik Kessels, Giorgia Lupi** and **Stefanie Posavec**, most of who are showing in Singapore for the first time. Their artwork is shown alongside compelling projects by designers, educators, cartographers, engineers, economists, architects, journalists and many others.

Big Bang Data opens during the *Smart Nation Innovations Week*, organised by the Infocomm Development Authority (IDA) of Singapore, a week-long festival which highlights Singapore's ambition to harness data and digital technology to become the world's first Smart Nation. *Big Bang Data* includes many projects developed by local technology companies, data scientists and leading research institutes which provide visitors with an insight into how Singapore is developing into a Smart Nation.

“ArtScience Museum is delighted to bring *Big Bang Data* to Asia. It is meaningful that we launch this exhibition during *Smart Nation Innovations Week*. As Singapore moves towards becoming the world's first Smart Nation, this show is a timely opportunity to reflect on what data means to all of us. We hope that *Big Bang Data* will inspire audiences to consider the issues inherent in moving towards a data-driven society. Sitting at the intersection between art, science, technology and culture, ArtScience Museum aims to engage, empower and encourage participatory conversations about digital culture. To that end, *Big Bang Data* runs alongside our new permanent exhibition, *Future World*, a collaboration with digital artists teamLab, and the two together make ArtScience Museum a must-visit location for anyone interested in digital culture,” said Honor Harger, Executive Director of ArtScience Museum.

“Singapore has a vision of becoming a Smart Nation, which means all parts of our ecosystem pulling together to work on difficult challenges, including the future of healthcare and transportation. To best serve citizens of all ages and businesses of all sizes, we know that gathering and utilising data in new ways is vital. But, regardless of how powerful any underlying technology becomes, anything we do has to be for the purpose of improving lives and society as a whole. This is why the arts is so important to ensuring we keep "humanity" at the centre of our Smart Nation goals,” said Steve Leonard, Executive Deputy Chairman, IDA.

"The Centre of Contemporary Culture has recently launched a series of interdisciplinary exhibitions that analyses the culture of the 21st century and the great transformations of our present era, while exploring the intersections between culture, technology and social change. *Big Bang Data*, a project conceived in this context of interests, is like a map or a set of resources drawn by visual artists and other creators that offers tools to position ourselves both intellectually and personally before this information explosion we are currently experiencing. After Barcelona, Madrid and London, we can't imagine a better context to present *Big Bang Data* than ArtScience Museum in Singapore, a city so connected to the experience of massive data," said Rosa Ferré, Director of Exhibitions at the Centre de Cultura Contemporània de Barcelona.

"We are excited to be part of the *Big Bang Data* exhibition as we see shared value from ArtScience Museum and Panasonic to the public, in terms of new technology and information showcase. This venture adds to Panasonic's long history of collaboration with museums and working with creative minds to bring technology closer through the Arts," commented Wilfred Wee, Executive Vice President, Panasonic System Solutions Asia Pacific, the Official Projection Partner of *Big Bang Data*.

Spotlight on data innovation in Singapore

To highlight Singapore's unique approach to data, *Big Bang Data* includes interviews with local data experts, data visualisations from Singapore, as well as a curated selection of prototypes developed by leading local research institutions. These projects explore what data means for Singapore and its future, and are woven throughout the exhibition route. They include:

DataDrives and Airscapes *Singapore-MIT Alliance for Research and Technology (SMART)* *Software* *Courtesy of MIT Senseable Cities Lab and SMART*	With every photograph, Twitter post, bus tap-in and credit-card swipe, the people of Singapore leave digital traces. These become Big Data about our city, generated by our citizens. *DataDrives* explores the stories hidden within 'urban' big data sets, such as Changi Airport traffic, electricity usage, and rainfall. *Airscapes* is a real-time visualisation of Singapore's air pollution. As sensors and handheld electronics have become part of the fabric of our city, the potential for a network of moving sensors to monitor urban air quality in real-time is very real.
Food Loves Fellowship	This interactive 3D map visualisation celebrates Singapore's love for food, and enables its users to discover where their favourite dishes can be eaten. It

*Urban Systems Lab at A*STAR's Institute for Infocomm Research (I^2R)* *Software* *Courtesy of A*STAR*	also calculates how long it will take to eat all the available hawker food in Singapore: approximately 160 years based on the reported average frequency of eating at hawker centres.
E-Tattoo Health Diagnostics *Designed by Alan Philip Rudge, School of Design, and Chew Swee Cheng, School of Applied Science 2015* *Quantified Self Device (E-Tattoo Health Diagnostics)* *Courtesy of Centre of Molecular Diagnostics (CMD), School of Applied Science, Temasek Polytechnic*	This prototype developed by Temasek Polytechnic is an electronic ultra-thin and flexible sticker that uses biosensors to monitor changes in health. It monitors abnormal glucose levels and irregular heart conditions. The in-built data transmitter allows signals to be sent to mobile devices and shared through the cloud, to enable convenient monitoring of the user's health status.
myENV Application *National Environment Agency of Singapore (NEA)* *Application*	The *myENV* application provides environmental news updates and information about Singapore to its users. It provides access to real-time information on Singapore's weather, air quality and dengue clusters, enabling citizens to make informed decisions as they go about their daily activities.
Beeline Application *Infocomm Development Authority of Singapore (IDA)* *Application*	*Beeline* is a free demand-driven shared transit application that seeks to improve the commuter experience in Singapore. It aims to bring users to their destination with the help of mobile technologies and data analytics. Combining crowd-sourced information with existing transport data, new transport routes are created to accommodate the needs of the public. The *Beeline* application was developed by IDA as a tool to expand public transport choices and facilitate alternative, reliable, and eco-friendly forms of transportation.
MOH iHealth Application *Ministry of Health, Singapore (MOH)* *Application*	A guide to healthcare facilities and healthcare professionals in Singapore, the MOH's *iHealth* application is an example of the ways in which open data

	can be used to facilitate communication between the public and the providers of public services. This application is a part of Singapore's Smart Nation vision to harness technologies to improve the lives of citizens.
Data.gov.sg *Ministry of Finance and the Infocomm Development Authority of Singapore* *Open source internet* *www.data.gov.sg*	*Data.gov.sg* was launched in 2011 as the Singapore government's one-stop portal to its publicly-available datasets, which come from 70 public agencies. Today, more than 100 applications have been created using the government's open data. The website aims to make government data relevant and easily understandable to the public, through the active use of charts and articles.
OneMap *Singapore Land Authority* *Open source Internet* *www.onemap.sg*	*OneMap* is an integrated map system for Singapore's government agencies to deliver location-based services and information to the public. Through a variety of menus, users can view maps, get directions, and receive information on services and statistics throughout the island. This is an example of the ways the Smart Nation platform is using data and technology to enhance public services.
SoundEye ARK *A*STAR's Institute for Infocomm Research (I^2R), Singapore* *Prototype and audiovisual* *Courtesy of A*STAR*	This sound-activated device helps to alert care providers of potential emergencies involving the elderly who live on their own. Equipped with sensors that detect sounds of distress, such as verbal screams, or smoke alarm sirens, it sends a notification to the care provider's smartphone of a potential emergency. The device also comes equipped with a two-way voice intercom, allowing care givers to check in verbally and respond quickly and appropriately to the situation. This device, which is now on trial in Singapore, is an example of how data can be harnessed to assist in the care of its ageing population.

CardioWerkz *A*STAR's Institute for Infocomm Research (I^2R)* *Prototype and audiovisual Courtesy of A*STAR*	Heart disease is a major healthcare burden and early diagnosis is an important and necessary part of disease prevention and progression. *CardioWerkz* is a computer-aided imaging tool that generates data from machines like the MRI to provide an in-depth diagnosis of heart conditions. In this installation, the data of *CardioWerkz* is linked to a visual display and multi-channel music output. The disharmony in the music channels represents problematic cardiac behaviour enabling the functionality of the prototype to be understood.

Understanding data through the lens of performances, workshops and conversations*
Beyond the visual art and innovative creations displayed at the exhibition, visitors at the opening weekend can also expect free performances, tours, workshops and conversations that seek to render different perspectives on datafication in the digital era. Gather with thought leaders from Singapore to explore the implications of data for our future, and experience a sound and movement piece by Singapore's Young Artist Award recipient Bani Haykal, which is influenced and choreographed by social media data and current affairs.

Curator's Guided Tour Sat 21 May, 11.30am Exhibition entrance, Basement 2	In this special tour with Big Bang Data co-curator José Luis de Vicente, discover the ways in which data is transforming our world. This exclusive insight into the curatorial process will provide an in-depth understanding of the exhibition narrative, the selection of artworks, and interesting facts about each work. *Complimentary to ticket-holders of Big Bang Data. Up to 25 participants on a first-come, first-served basis. Registration stickers will be given out five minutes before tour begins at exhibition entrance.*
Conversations **The Data Route** Sat 21 May, 2pm Expression Gallery, Level 4	Are you ready for the era of Big Data? Join us as we discuss and investigate the route that Big Data has taken, and how this affects the way information is communicated, shared and used in our digital age. *Free. Register in the lobby.*

ArtScience Late **We're Everywhere, Somewhere and Nowhere** Thu 26 May, 8pm Expression Gallery, Level 4	Curious about life in the 21st century? Bani Haykal explores what life is like in unnatural environments and circumstances; where the wilderness is a lolcat riddled with emojis and our lives are quantified by our browsing history. *Free. Register in the lobby.*
Workshop **Making Data Footprints** Sun 22 & 29 May, 2.30pm Exhibition entrance, Basement 2	Understand the fundamentals of data at this hands-on workshop. Experiment, get creative with various materials and share your data visualisation project with friends and family. *Complimentary to ticket-holders of Big Bang Data. Up to 20 participants on a first-come, first-served basis. Register 15 minutes before workshop begins.*
Public Guided Tour Sun, 22 & 29 May, 5pm Exhibition entrance, Basement 2	Discover the significant and surprising ways data is dramatically changing the way we interact with each other and with the world. Join the guided tour for an insight into the opportunities and limitations of data as we explore what data means to us and our future. *Complimentary to ticket-holders of Big Bang Data. Up to 25 participants on a first-come, first-served basis. Registration stickers will be given out five minutes before tour begins at exhibition entrance.*

**Terms and conditions apply*

Tickets for *Big Bang Data* will be available at all Marina Bay Sands box offices and website. Terms and conditions apply:

		Big Bang Data	Ticket bundles		
			Future World and Big Bang Data	Van Cleef & Arpels and Big Bang Data	Future World, Van Cleef & Arpels and Big Bang Data (All Access)
STANDARD TICKET (SGD)	**Adult**	$15	$25	$20	$30
	Seniors (65 years and above)	$12	$20	$17	$25
	Child (2-12 years)	$9	$15	$12	$19
	Family package (2 kids & 2 adults)	$39	$60	$50	$70
SINGAPORE RESIDENT (SGD)	**Adult**	$12	$20	$17	$25
	Seniors (65 years and above)	$10.20	$17	$15	$20
	Child (2-12 years)	$7.20	$12	$10	$15
	Family package (2 kids & 2 adults)	$31	$52	$40	$60

The exhibition will run from 21 May to 16 October 2016. For more information on *Big Bang Data,* please visit www.marinabaysands.com/ArtScienceMuseum.

Hashtag: #BigBangData

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About Marina Bay Sands Pte Ltd

Marina Bay Sands is the leading business, leisure and entertainment destination in Asia. It features large and flexible convention and exhibition facilities, 2,560 hotel rooms and suites, the rooftop Sands SkyPark, the best shopping mall in Asia, world-class celebrity chef restaurants and an outdoor event plaza. Its two theatres showcase a range of leading entertainment performances including world-renowned Broadway shows. Completing the line-up of attractions is ArtScience Museum at Marina Bay Sands, which plays host to permanent and marquee exhibitions. For more information, please visit www.marinabaysands.com

About ArtScience Museum
ArtScience Museum at Marina Bay Sands is Southeast Asia's leading cultural institution that explores the inter-relationship between art, science, technology and culture. Featuring 21 galleries totaling 50,000 square feet, the iconic lotus-inspired building has staged major exhibitions by some of the 20th century's key artists, including Salvador Dalí, Andy Warhol and Vincent Van Gogh, as well as major exhibitions which explore aspects of scientific history.

About The Centre de Cultura Contemporània de Barcelona
The Centre de Cultura Contemporània de Barcelona - CCCB is a space for the creation, investigation, divulgation and debate of contemporary culture where the visual arts, literature, philosophy, film, music and transmedia activities are interconnected in an interdisciplinary programme. The CCCB works in a network with international institutions and agents, and is linked at the same time to artists, creators' groups, curators and independent cultural agents from the Barcelona area, supporting their proposals to participate in their creative capital and give them visibility.

The challenges of 21st-century society, the expansion of the literary universe; the intersection of art, science, humanities and technology; the hegemony of the audiovisual galaxy; the commitment to cultural research and innovation; the challenge represented by new audiences and the emergence of new real and virtual communities. The renewal of languages and lexicons, the rebirth of the commons; the challenges of participation and co-creation; the tensions between privacy and transparency; the advent of new social and political models; the risks and opportunities of the scientific and technological revolution. These are some of the decisive processes in a culture undergoing deep transformation and that define the thematic lines of the CCCB over the next few years.

About Smart Nation Innovations Week
The Smart Nation Innovations Week, a festival where tech meets innovation, will welcome more than 15,000 local and international guests across different communities to congregate in Singapore to share, exchange and learn about disruptive technology, look into the future impact of technology and celebrate the success of young entrepreneurs across Asia. Comprising of pillar events – InnovFest Unbound, Forbes Under 30 Summit Asia, Tech Saturday, Big Bang Data as well as heartland community events, this innovation series is brought to you by the Infocomm Development Authority of Singapore (IDA) as a Smart Nation initiative.

About Panasonic System Solutions Asia Pacific
Based in Singapore, Panasonic System Solutions Asia Pacific is the B2B solutions division of Panasonic Asia Pacific Pte Ltd, the South East Asia and Pacific (APAC) subsidiary of Panasonic Corporation. Panasonic System Solutions Asia Pacific delivers B2B solutions for government and commercial enterprises of all sizes that cover unified business communications, mobile computing, data storage, security and surveillance, retail point-of-sale, visual communications (projectors, professional displays, digital signage) and imaging network solutions (broadcast and professional video). For more information: http://panasonicapac.mynewsdesk.com/

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