Visualizing Objects, Places, and Spaces: A Digital Project Handbook

Deep Mapping: Creating a Dynamic Web Application Museum "Soft Power" Map

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Mapping Museum Soft Power

Team

Principal Investigator: Natalia Grincheva, Research Fellow, University of Melbourne

Hosted and supported by the Digital Studio at the University of Melbourne, the project brought together academics and 17 graduate students from the School of Culture and Communication to collaborate with cultural professionals from the Australian Centre for the Moving Image (ACMI).

The project also prompted collaborations with academics from the Research Unit in Public Cultures and Spatial@Melbourne who offered academic expertise in cultural and urban research on several stages of the project development. The Digital Studio

provided valuable resources and facilities to accommodate research internships associated with the project. It also played a key role in presenting and disseminating research outputs to wider academic and professional communities through various presentations and workshops.

Moreover, I worked with specialists from the Social and Cultural Informatics Platform and the Australian Urban Research Infrastructure Network (AURIN) who were particularly helpful in supporting data aggregation from open sources and from the Australian Bureau of Statistics. Research expertise and support across these units were instrumental to successfully complete my geo-visualisation project that achieved such a strong international recognition and visibility.

Project URL

<http://victoriasoftware.com/demo/>

<https://arts.unimelb.edu.au/research/digital-studio/projects/our-projects/deep-mapping>

Project Abstract

The project employs Geographical Information Technologies to develop a pilot version of the digital mapping system "Museum Soft Power Map". This digital system offers a new computation research method to explore contemporary museums and geography of their influence. It geo-visualises museum "soft power," defined as an institutional

ability to mobilise global public, generate economic activity, and attract international investments.

Time Needed

When did you begin this project? When did you complete this project?

Time Span: January 1, 2018 - present

Length: 2+ years

Outcomes

What is the outcome of the project?

The project successfully trialed a pilot version of the digital geo-visualisation system "Museum Soft Power Map" (<http://victoriasoftware.com/demo/>) that will be further developed in collaboration with major museums around the world.

The pilot is a focused single-museum online tool that maps and assesses "attraction power" of the Australian Center for the Moving Image (ACMI) in Melbourne and abroad. The dynamic web application ACMI Soft Power offers multilayered exploration of ACMI cultural resources and social outputs to reveal social-demographic, cultural and economic factors that affect its capacity to attract larger visitation and revenue.

Resources

What tools, resources, programs, or equipment did you use for this project?

Contributing to the growing scholarship on cultural mapping, my project employed geo-visualisation, data mining and digital storytelling to develop a deep mapping application that can demonstrate museum global influence across five key layers of soft power from mere resources to social outputs to economic outcomes. I outsourced software programming development through a close collaboration with Victoria Software (Melbourne-based start up). They used 3D online gaming platform Unity to design a dynamic mapping web application: <http://victoriasoftware.com/demo/>. Calculating a numerical score across five dimensions of soft power for each country on the map, the application demonstrates considerable differences in institutional soft power reach across geographical areas. Revealing that soft power is a variable shaped by local factors, the application advanced existing soft power measurement tools, like Soft Power 30 or Global Power City Index. These dashboards are poorly designed to account for the complex nature of different and even competing actors of soft power within a country or city and produce false assumptions that the power appeal of a particular actor is universal across countries.

Funding

Please describe any costs incurred for this project, and (if relevant) how you secured funding for these costs.

The project received funding from the University of Melbourne (AU \$ 20.000) through a competitive and prestigious Melbourne Engagement Grant program

Workflow

Please give an overview of the workflow or process you followed to execute this project, including time estimates where possible.

January 2018 - April 2018: Collecting data through graduate research internships at ACMI

May - August 2018: Development of the prototype Mapping system ACMI Soft Power

September - October 2018: Collecting data for storytelling component of the mapping system through graduate research internships at ACMI

November - December 2018: Launching online of the first pilot version of the web app ACMI Soft Power

January - April 2019: Collecting data for a new layer of the mapping app that can forecast soft power through graduate research internships at ACMI

May 2019: Launching the new layer online

June 2019 - Present: developing plans, establishing partnerships, seeking for funding to expand the pilot project further through new collaborations with major museums in the UK

Challenges & Opportunities

What, if anything, changed between beginning your project and its current/final form?

N/A

Is there anything specific you wish you had known when beginning your project that might help other people to know?

N/A

Next Steps

Do you have any plans to follow up on this project or work on something similar in the future?

I am currently developing plans, establishing partnerships, seeking for funding to expand the pilot project further through new collaborations with major museums in the UK. Most recently in collaboration with academics from the Digital Diplomacy Research Group from the University of Oxford, we have applied for the UK Arts and Humanities Research Council Network Grant: Digital soft power of GLAM actors in the (post)pandemic world. Read more here: <http://softpower.tilda.ws/>

Publications & Presentations

Video presentations:

YouTube 2 min video demo": <https://www.youtube.com/watch?v=vIbSSiukcLk>

Cultural Research Network webinar: <https://vimeo.com/305756656>

Peer-reviewed academic publications:

Grincheva, N. (2019) "The Form and Content of 'Digital Spatiality': Mapping Soft Power of DreamWorks Animation in Asia." *Asiascape: Digital Asia*, 6 (1): pp. 58-83.

Grincheva, N. (2019) "Mapping Museum Soft Power: Adding Geo-visualization to the Methodological Framework." *Digital Scholarship in the Humanities*, 34 (4): pp. 730-751.

Media and professional blog articles:

Grincheva, N. 2019. ["The Geo-Visualisation of Australian Soft Power: From Measuring to Forecasting."](#) *Australian Outlook*. July 14.

Grincheva, N. 2019. ["The Soft Power of Smart Cities: The Giant Missing Bit."](#) *Australian Outlook*. May 15.

Grincheva, N. 2019. ["Digital Sensations: New generation of innovative solutions advancing digital curation."](#) Guest video blog post for the Digital Curation Center. February 24.

Grincheva, N. 2019. ["Understanding Museum Soft Power."](#) Australian Urban Research Infrastructure Network Case Studies. February 5.

Grincheva, N. 2018. ["Putting museum power on the map."](#) *Pursuit*. December 5.

Grincheva, N. 2018. ["Turning Geo-Spatial Museum Data into a Soft Power Evaluation Tool."](#) Guest post for the American Alliance of Museums, Center for the Future of Museums Blog. December 5.

Grincheva, N. 2018. ["Demystifying museum soft power: geo-visualizing museums' influence."](#) Guest post for the Center on Public Diplomacy Blog. October 18.