re:PLACE - REgeneration: PLanning Active Centres

artificial intelligence analytics and forecasting system for urban regeneration, master planning and community planning engagement

Dr Nicolas Palominos

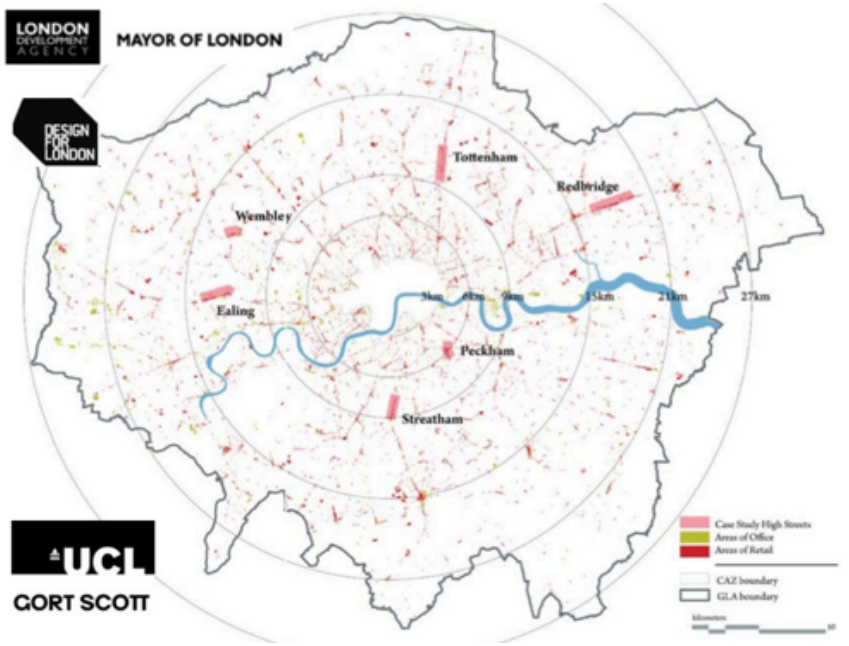
PhD in Advanced Spatial Analysis, UCL - 2021
MSc in City Design and Social Science, LSE - 2012
BA Architecture, PUC - 2004

Researcher & Lecturer (UCL, LSE), 2012, 2016-2022
Designer & Analyst (The Comptroller General of Chile), 2009-2016
Project Manager & Designer (Ministry of Housing & Planning) 2006-2009

KNOWLEDGE & EXPERTISE

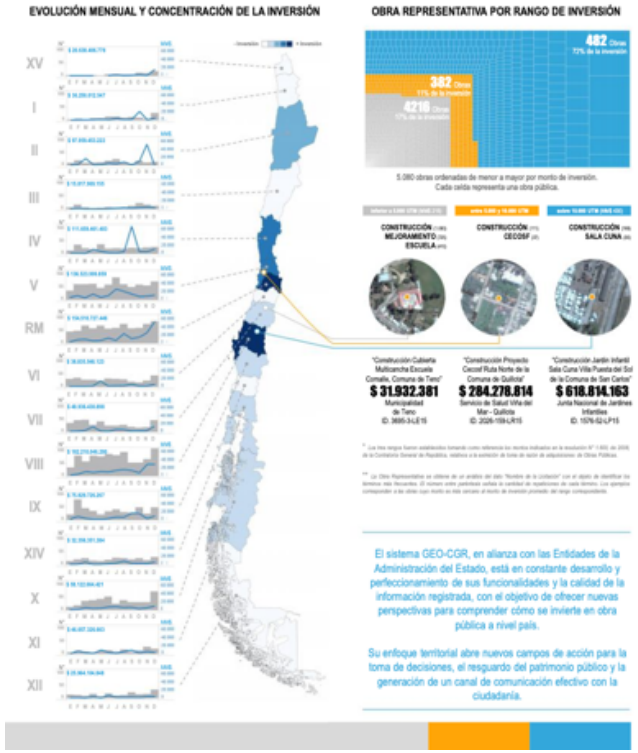
Ordinary Streets, LSE Cities, 2012

What makes a multicultural and diverse street vital and vibrant?



GEO-CGR, The Comptroller General of Chile, 2016

Country wide oversight of public works for civic engagement



Incluirá a ministerios de OO.PP., Vivienda y, a futuro, municipios:

Contraloría estrenará "portal ciudadano" de fiscalización en infraestructura

Durante el segundo semestre de este año se lanzará la página web. Con esta iniciativa, el contralor Ramiro Mendoza aspira a que las personas se transformen en otro fiscalizador de las obras que afectan la calidad de vida de los usuarios.

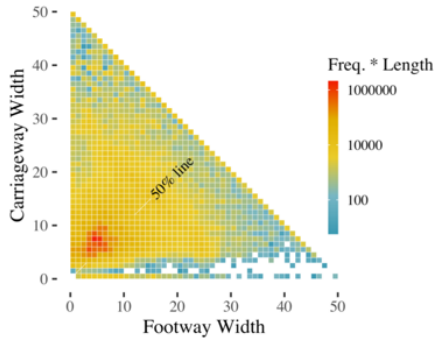
El portal será georreferenciado; es decir, habrá un mapa de Chile donde el usuario podrá saber qué fuentes se están llevando a cabo y los detalles de ellas.

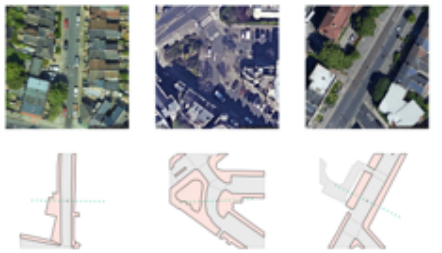
Quiero Mi Barrio ('I Love My Neighbourhood')
Ministry of Housing and Planning, Chile, 2006

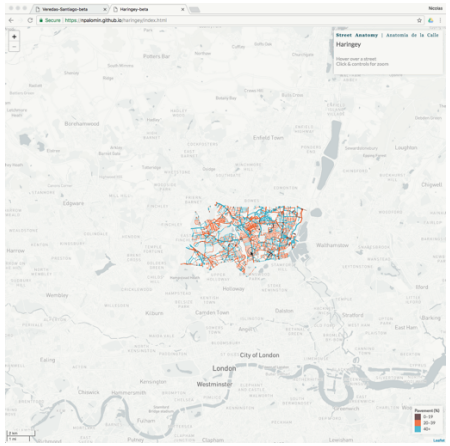
Regeneration program for marginalized neighbourhoods

Rethinking Streets, Centre for Advanced Spatial Analysis, 2021

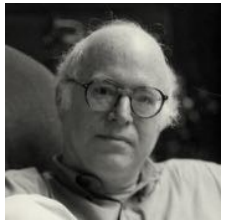
A study of streetspace allocation and street networks in London







APPROACH, METHODS & TOOLS



... today's planner has an arsenal of technological tools …
we have more resources to use than in the past, but resources we don't use very creatively.

The Open City, 2006

… you plan for the things you have information about …

The living room of a city (interview), 2015

Cities happen to be problems in organized complexity, like the life sciences. They present "situations in which a half-dozen or even several dozen quantities are all varying simultaneously and in subtly interconnected ways." … The variables are many, but they are not helter-skelter; they are "interrelated into an organic whole."

The Kind of Problem a City is, 1963

We cannot predict future cities, but we can invent them… Cities are largely unpredictable because they are complex systems that are more like organisms than machines.

Inventing Future Cities, 2018

… the design of cities emerges from the complex interaction of socio-economic with spatio-technical processes and practice

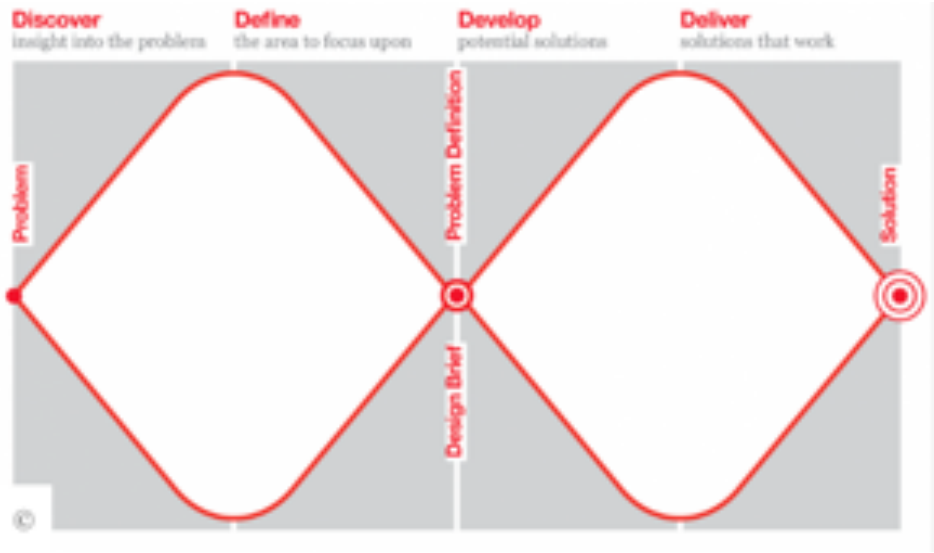
Cities by Design, 2014

Data Science Deconstructed

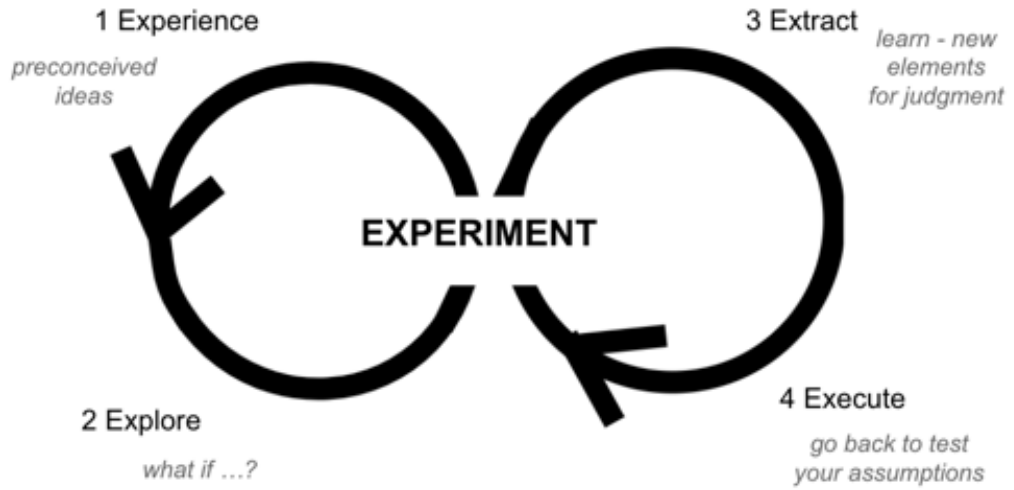
iterative process

01 Frame the Problem, 04 Explore the Data, 06 Communicate Results

Design Process

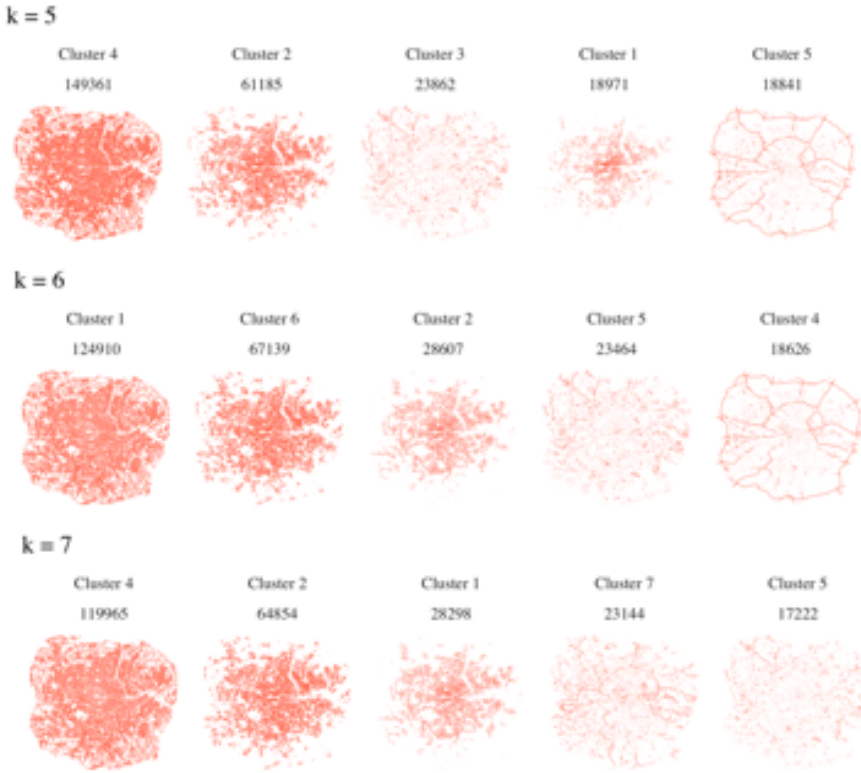


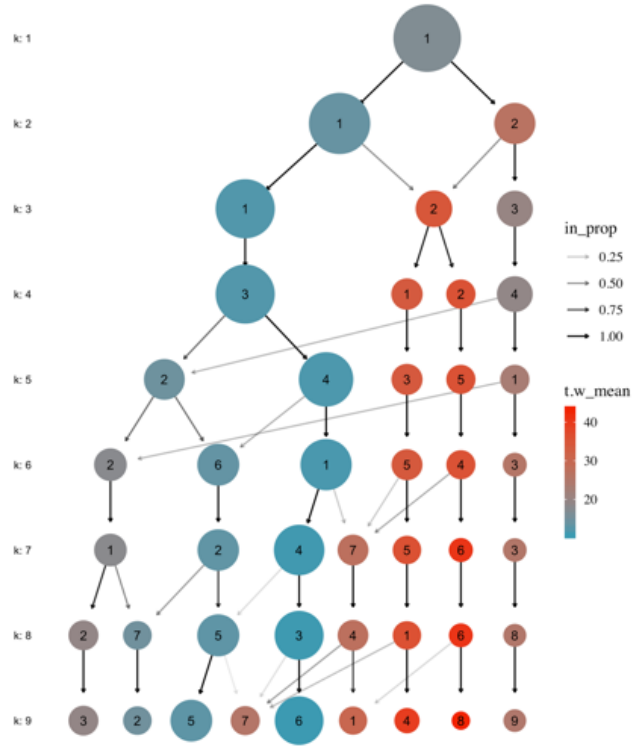
Experimentation Loop

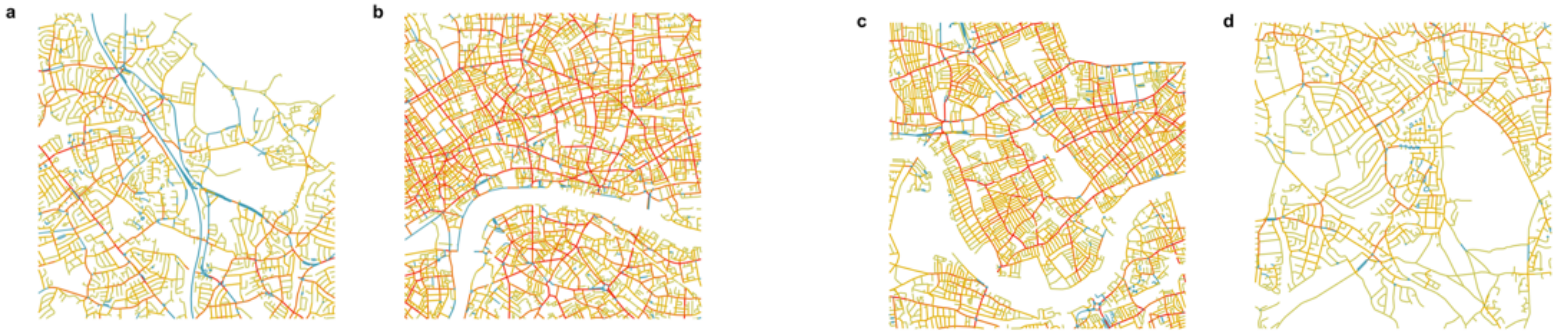


04 Explore the Data, 05 Perform In-Depth analysis, 06 Communicate Results

A typology of town centres

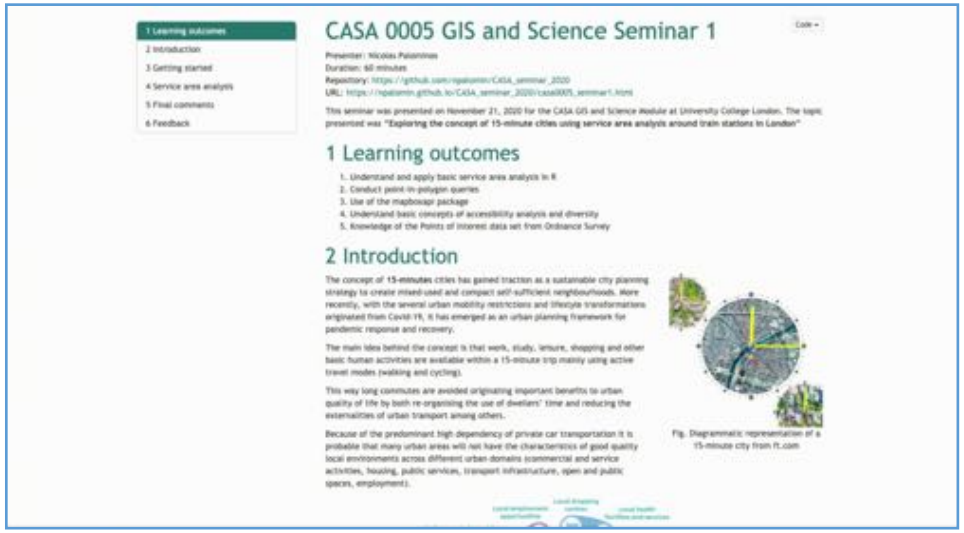


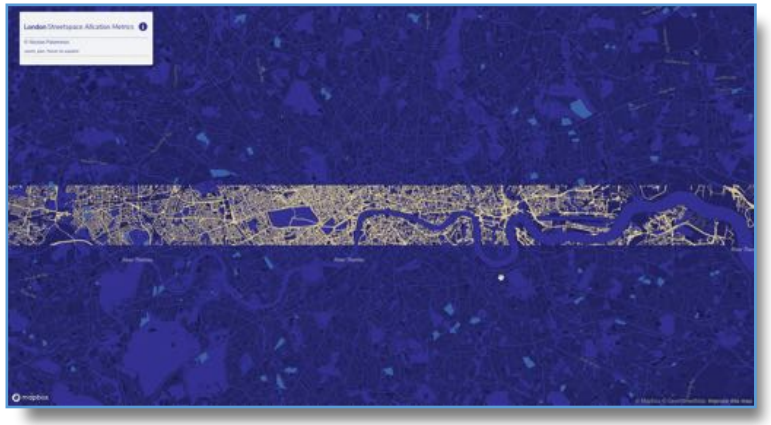


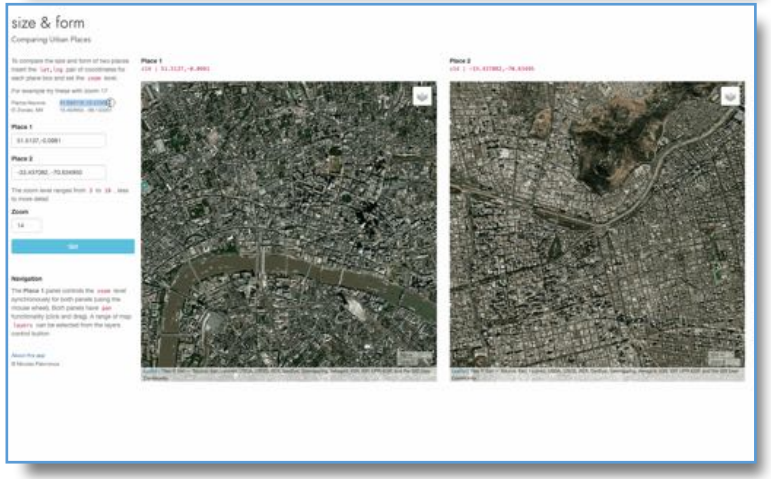


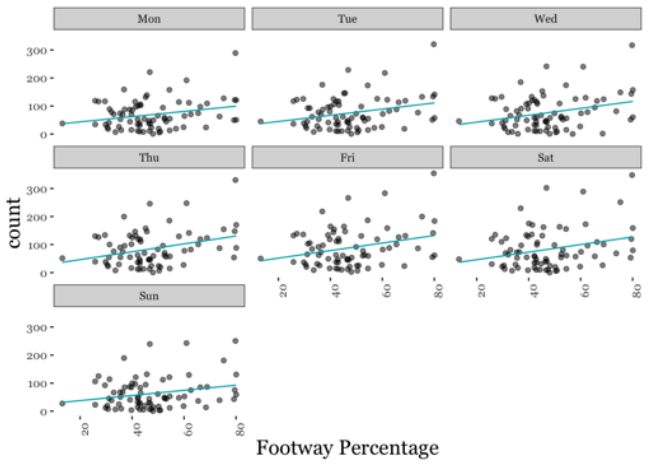
03 Process the Data, 04 Explore the Data, 06 Communicate Results

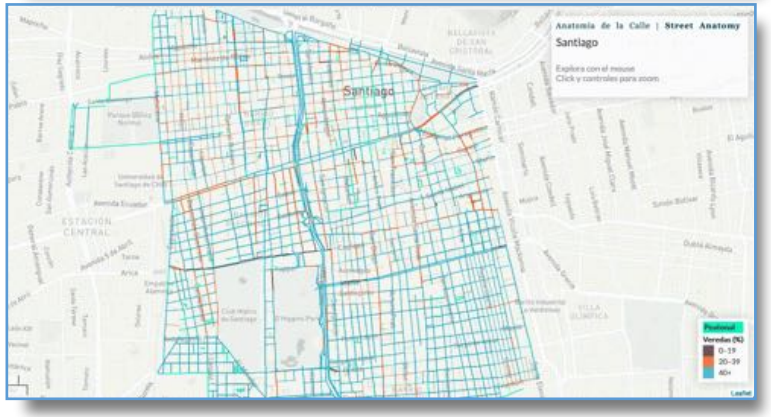
Interactive Notebooks, Web Apps, Data Visualizations





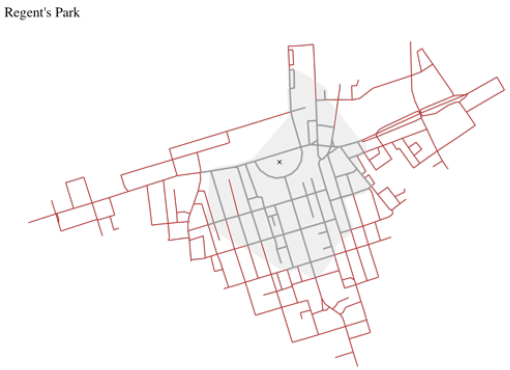






02 Collect Raw Data, 03 Process the Data, 04 Explore Data, 05 Perform In-Depth analysis , 06 Communicate Results

Secondary data
Geocomputation – Replicable & Scalable
Urban Analytics – Quantitative, Computational, Visual and Design methods



QGIS

docker

GitHub

RStudio

ggplot2 sf OSM Shiny sfnetworks tidyverse tidymodels stplanr

igraph

Leaflet

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Thank you
for your attention