



**Unplugging,
Techno-Politics of Data
&
Smart (City) Devolution:
Comparing Barcelona, Bilbao, Glasgow and Bristol**

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#SCEWC17

Going Beyond Data Mining: Building a City Data Strategy

10:00-11:00

Barcelona [Catalonia]

16th November 2017 / 16 Novembre 2017 / 16 Noviembre 2017



KEY MESSAGE at the #SCEWC17:

1. Unplugging: Deconstructing Smart Cities

- Transitions

2. Techno-Politics of Data

- Data = No neutral

3. Comparing: Barcelona, Bilbao, Glasgow and Bristol

- Transitions in some City Data Strategies

4. Smart (City) Devolution:

- Technological Sovereignty

5. Two Final Remarks/Questions:

- Why Does (Smart) Devolution Matter?
- Is Devolution Smart?



Beyond **Hyper-Connected Societies** >
Need to Deconstruct the **Smart City**



Beyond Hyper-Connected Societies > Need to Deconstruct the Smart City

By @icalzada

Beyond Hyper-Connected Societies >



By @icalzada



Need to Deconstruct the Smart City

Beyond **Hyper-Connected Societies** >

UNPLUGGING

Need to Deconstruct the **Smart City**

Beyond **Hyper Connected Societies** >

By @TheAtlantic

Masdar

Songdo

UNPLUGGING

Cugurullo, 2013

Shwayri, 2012

Need to Deconstruct the **Smart City**



#HER



ARE YOU HAPPY?



By @EU_H2020

CITY DATA STRATEGIES?

**‘Smart city-in-the-box’
approach**

A Model of the Successful Smarter City



**CITY DATA
STRATEGIES?**





CENTRO DE OPERAÇÕES
PREFEITURA DO RIO

CITY DATA STRATEGIES?

Rio de Janeiro
(Brazil)

CITY DATA STRATEGIES?

Yinchuan
(China)

By @icalzada



A group of people, mostly men, are gathered in a room with large windows and multiple computer monitors. The monitors display various data visualizations, including maps and charts. The text 'CITY DATA STRATEGIES?' is overlaid in large white letters. The room has a modern, professional feel with a white ceiling and large windows looking out onto a street.

CITY DATA STRATEGIES?

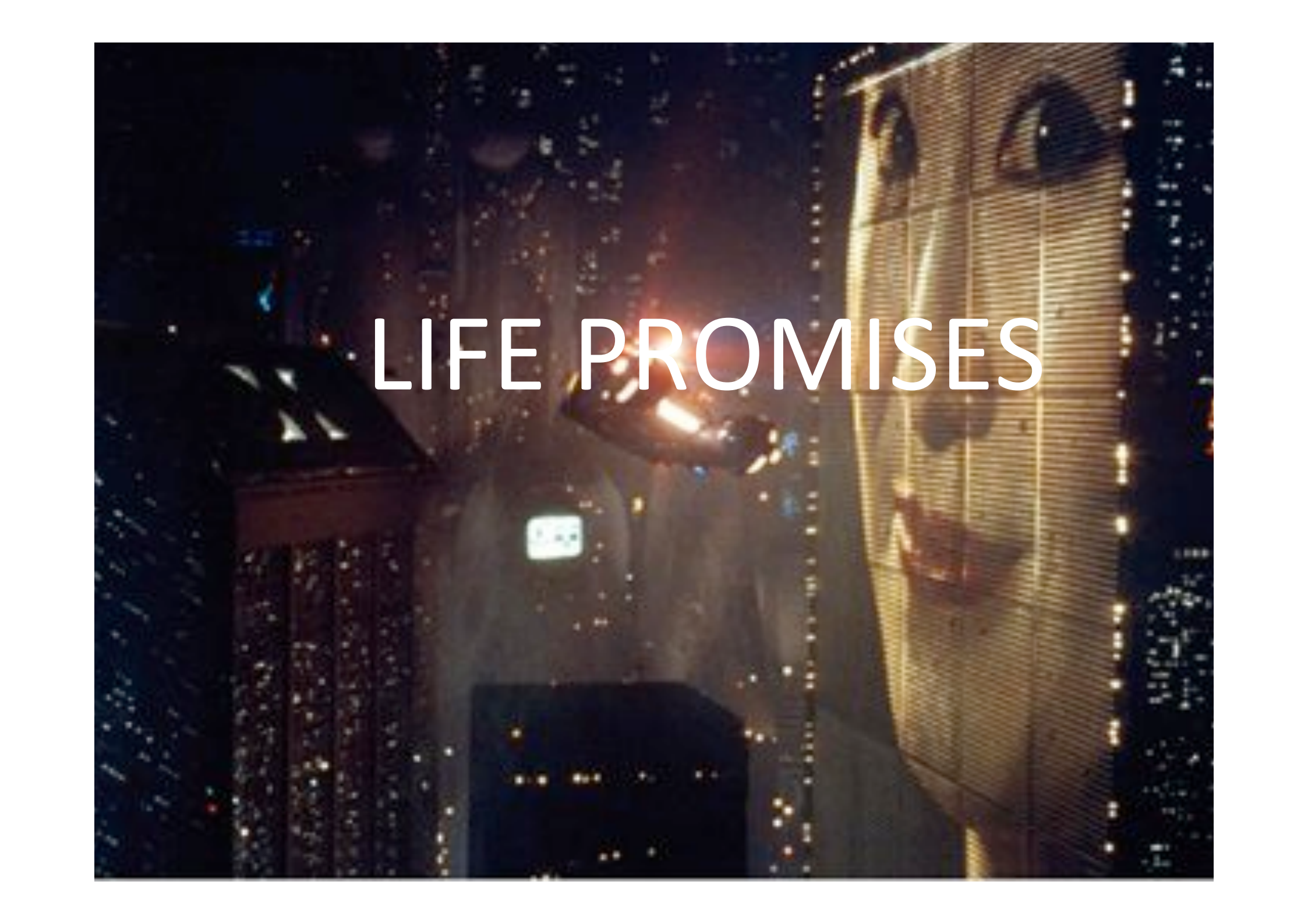
Florence
(Italy)

REPLICABILITY



EFFICIENCY



A night photograph of a cityscape. In the foreground, a large, illuminated, golden face sculpture is visible on a building facade. The face has a serene expression and is surrounded by vertical lines of light. In the background, other buildings are lit up, and a small, glowing square sign is visible on one of them. The overall scene is dark, with the city lights providing a warm, golden glow.

LIFE PROMISES

TRANSITIONS





@perjovschi

Unplugging: Deconstructing the Smart City

Igor Calzada and Cristobal Cobo



ABSTRACT *This paper explores the subtle notion of unplugging to critically analyze the technological determinism of the Smart City. This exploration suggests that being digitally connected should not be perceived as gaining social capital. This article critiques the assumptions of the Smart City and proposes a 10-dimension conceptual framework. The first section of this article explores hyper-connected societies and how unplugging could be beneficial. The main subjects, Digital Natives, are discussed in the second section of this article. The third section is a decalogue on deconstructing the Smart City, and the final section presents key ideas and questions for future analysis.*

KEYWORDS *unplugging; social innovation; smart city; hyper-connected societies; digital & social divide*

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Calzada, I. & Cobo, C. (2015), *Unplugging: Deconstructing the Smart City*, Journal of Urban Technology. DOI: 10.1080/10630732.2014.971535

	1 WHO	2 HOW	3 SYSTEMS	4 GOVERNANCE	5 INFORMATION	6 FOCUS	7 SPACE	8 DESIGN	9 SOCIO- POLITICAL PROCESSES	10 POLITICAL ECONOMY
10 Dimensions 	Social & Digital Divide	Individualism vs Collectivism	Socio- Technical Systems	Master Planning vs. Emergent Plan and Top Down vs. Bottom Up	Overload vs Scarcity	Social Netking vs Social Capital	Context Collapse	Ambient Commons	Control & Normative vs Free & Emergent	Profitable vs Non- Profitable

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UNPLUGGING 2 notions

- ① Being digitally connected/*plugged in* is no guarantee of being smart (Evans 2002: 34)
- ② Technology/**Data** is never **neutral**, and it has the potential and capacity to be used socially and politically for quite different purpose (Williams 1983: 128)

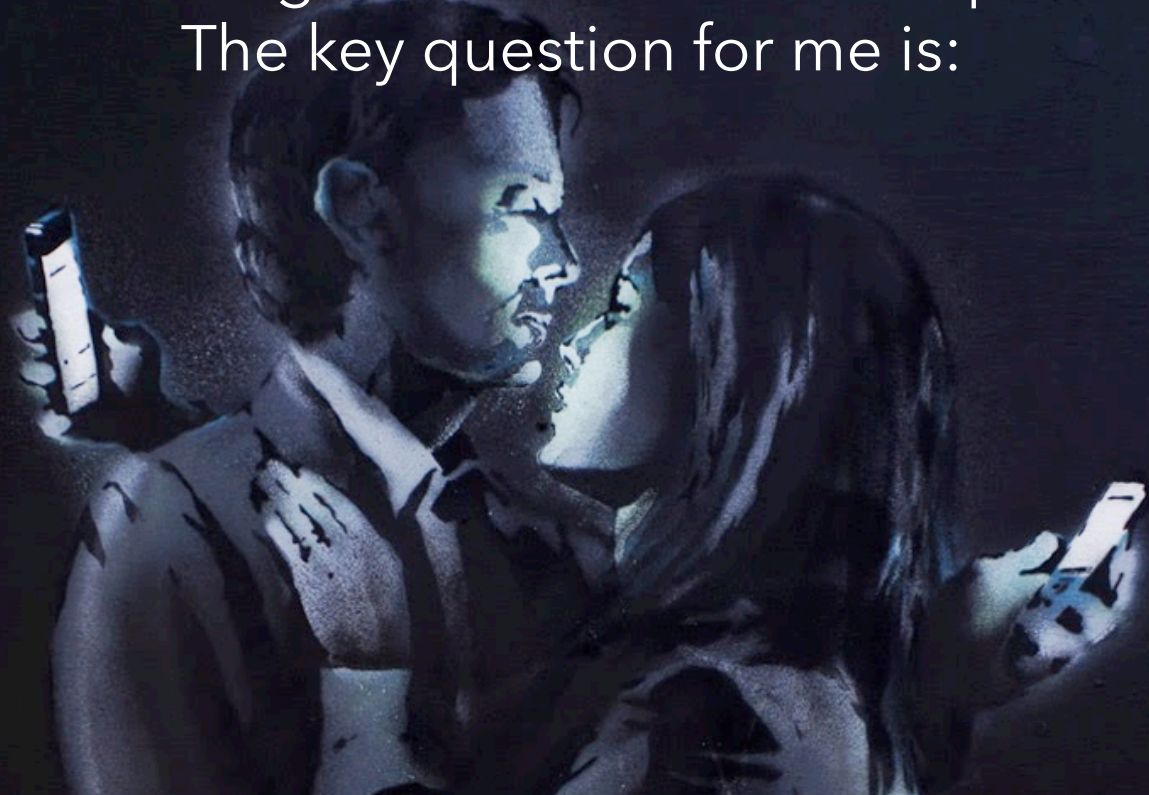
POLITICIZE
THE CITY =
TECHNO-POLITICS
OF DATA



Without considering
neither first needs and
usability by citizens nor
socio-technical
misalignment
within
the city...



'I have no problem
with technological solutions to social problems.
The key question for me is:



'Who gets to implement them?' and,
'What kinds of politics of reform do technological
solutions smuggle through the back door?'
(E. Morozov, 2013)

We are already becoming tiny chips inside a giant system **that nobody really understands**
(Harari, 2017)



Dataism > The Religion/Dogma of the Big Data

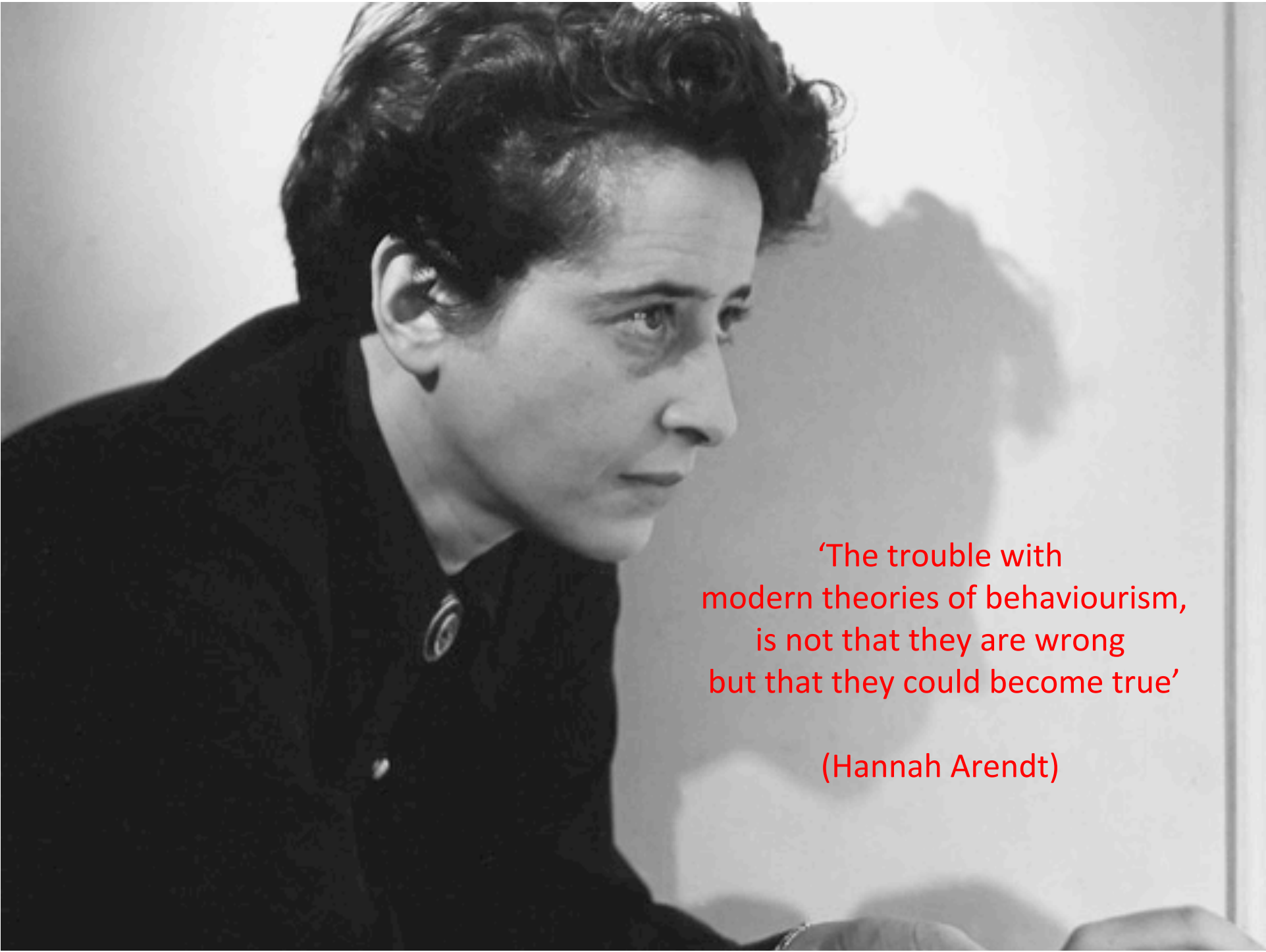
<https://www.ft.com/content/50bb4830-6a4c-11e6-ae5b-a7cc5dd5a28c>



Smartness

cannot be more technocratic
than democratic

(Jürgen Habermas, 2015)

A black and white photograph of Hannah Arendt. She is shown from the chest up, turned slightly to her right, looking off-camera with a thoughtful expression. She has dark, wavy hair and is wearing a dark, high-collared jacket. The background is a plain, light-colored wall with a soft shadow of her head and shoulders cast upon it.

‘The trouble with
modern theories of behaviourism,
is not that they are wrong
but that they could become true’

(Hannah Arendt)

AMITABH SATYAM | IGOR CALZADA



Satyam, A. & Calzada, I.
(2017),

*The Smart City
Transformations. The
Revolution of the 21st
Century.*

Bloomsbury Academic
and Professional
Publishing, New Delhi,
London, Oxford, New
York, Sydney.

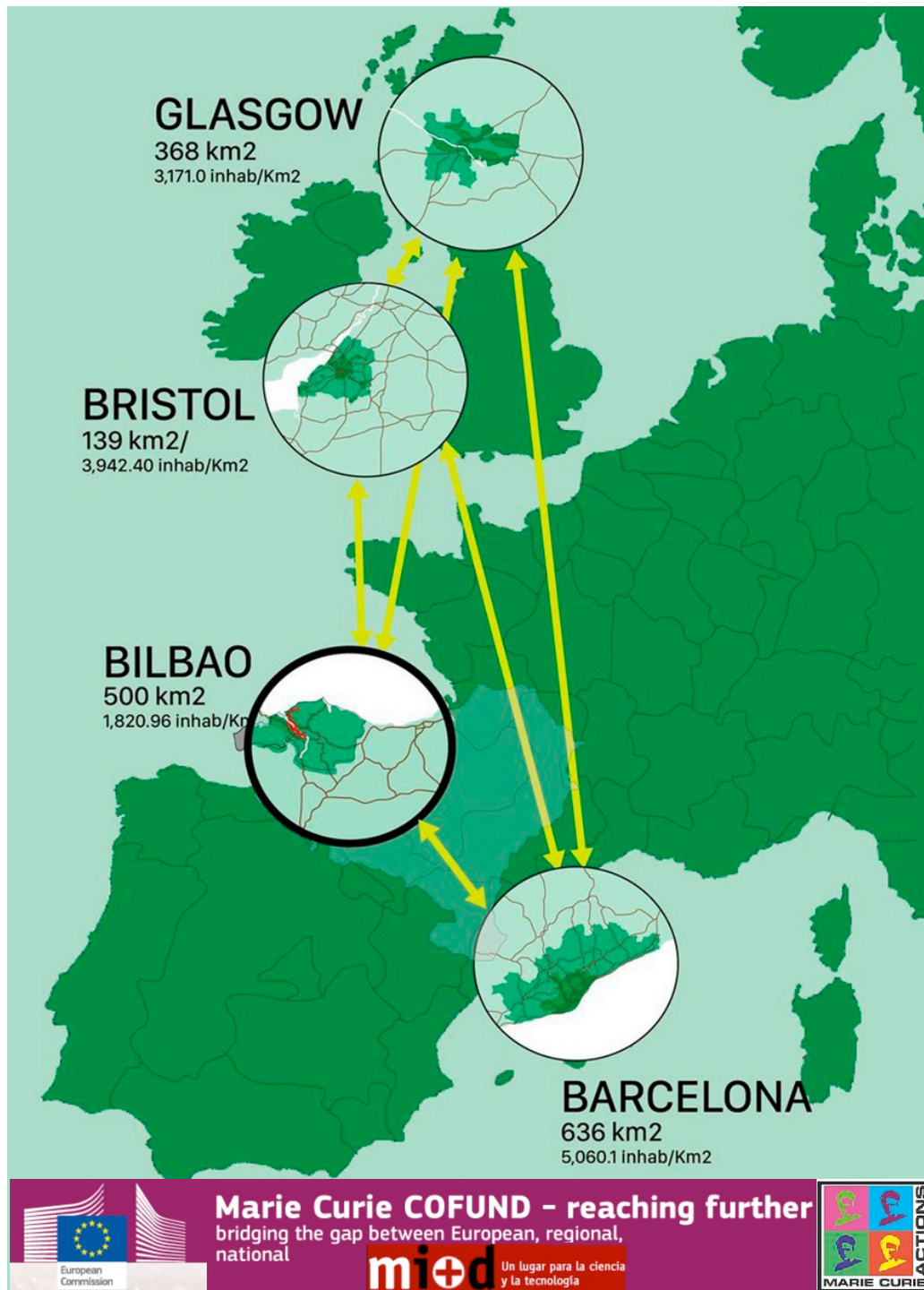
THE SMART CITY TRANSFORMATIONS

The revolution of the 21st century

BLOOMSBURY



UNIVERSITY OF
OXFORD



Calzada, I. (2017), The Techno-Politics of Data and Smart Devolution in City-Regions: Comparing Glasgow, Bristol, Barcelona, and Bilbao. Systems Journal 5(1): 1-18. Special Issue 'Smart Cities and Regions as Systems of Innovation' (ISSN 2079-8954). DOI: 10.3390/systems5010018

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Systems **2017**, *5*(1), 18;

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The Techno-Politics of Data and Smart Devolution in City-Regions: Comparing Glasgow, Bristol, Barcelona, and Bilbao

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To unplug the
smart city data strategies?



Benchmarking/Comparing Smart City Strategies: Bristol & Glasgow (UK) Barcelona & Bilbao (Spain)

Smart City-Regional	Bilbao	Barcelona	Bristol	Glasgow
Municipalities	35	31	4	5
Surface (km2)	500	636	139	368
Density (Inhabit/km2)	1,820	5,060	3,942	3,171
Population (Inhabit)	910,480	3,218,223	547,993	1,166,928
GDP per capita (\$)	38,708	36,157	42,326	37,753
City-region	Basque	Catalonia	Bristol	Scotland
City-constelations	Bilbao, San Sebastian, Vitoria, Pamplona & BAB*	Barcelona, Tarragona, Lleida & Girona	Bristol, Bath & NESomerset, SGloucester & NSomerset	Glasgow, Aberdeen, Dundee, Edinburgh, Inverness, Perth & Stirling
Nation-states	ES		UK	
Devolution	Fiscal autonomy	Trade autonomy	LEP	Devo-max/Smith
Taxonomy	Small nation with tax autonomy	Small nation without tax autonomy	City-regional satellite hub	Tax devolutionist small-nation
Techno-Politics of Data	Fragmented but very active institutional network	On-going transition	Open Innovation	Urban Governance
City Data Strategy	Not a single one	iBarcelona	Bristol is Open	Glasgow Future City
Urban solutions	Energy	ICT	ICT/Energy	ICT/Mobility
Key Stakeholders	www.bm30.es www.smartcities.es	www.bitbarcelonamodel.com www.smartcity.bcn.cat	www.bristolisopen.com www.connectingbristol.org www.bristolenergynetwork.org	www.futurecity.glasgow.gov.uk www.open.glasgow.gov.uk www.scottishcities.org

Calzada, I. (2017), The Techno-Politics of Data and Smart Devolution in City-Regions: Comparing Glasgow, Bristol, Barcelona, and Bilbao. Systems Journal 5(1): 1-18. Special Issue 'Smart Cities and Regions as Systems of Innovation' (ISSN 2079-8954). DOI: 10.3390/systems5010018

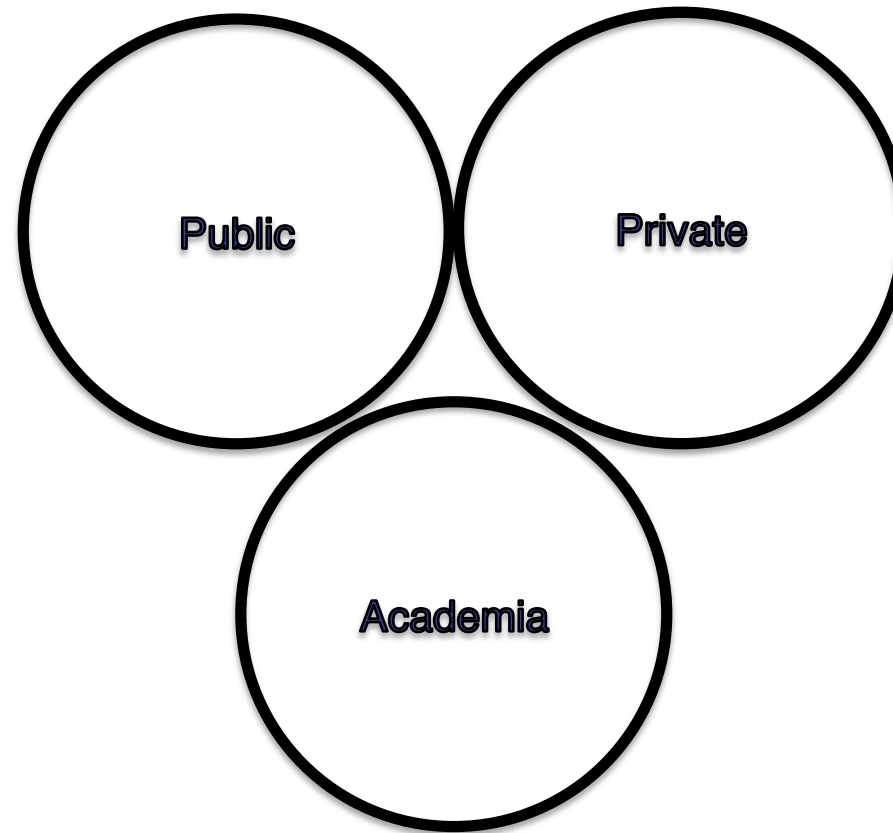
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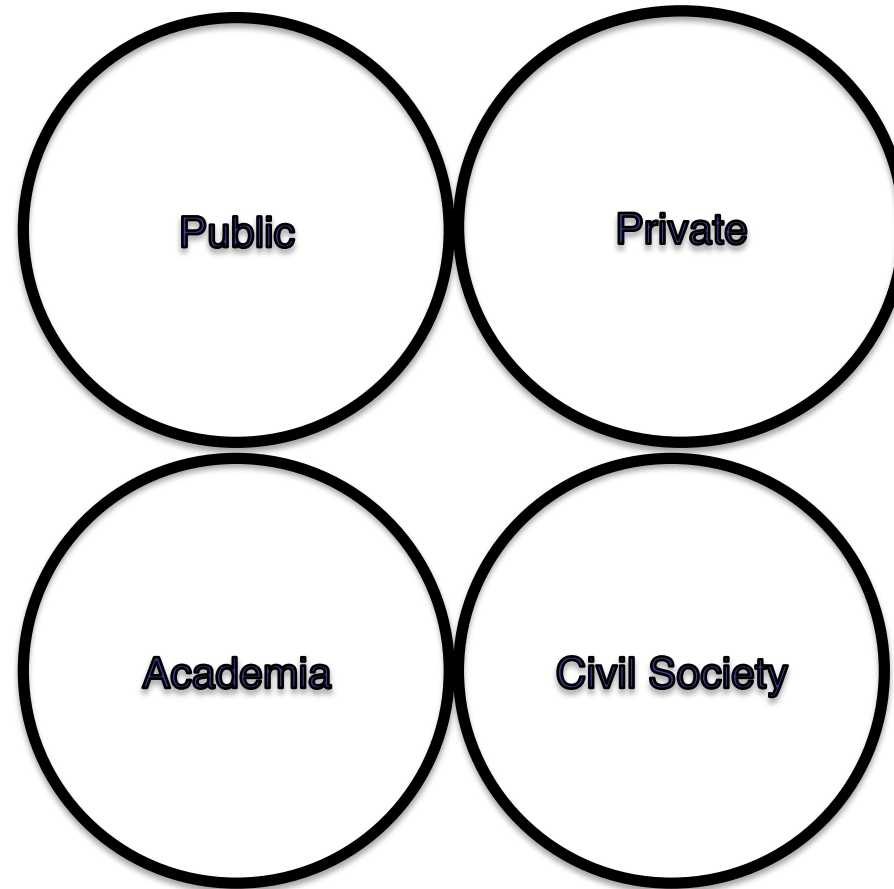


TRIPLE HELIX



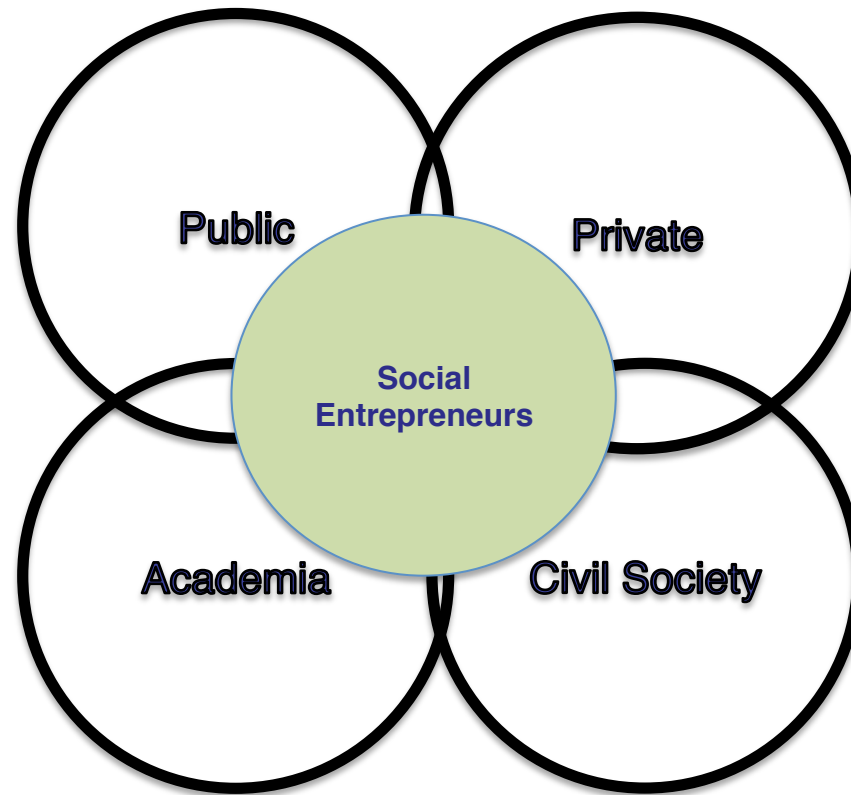
(Etzkowitz & Leydesdorff, 2000; Lawton & Leydesdorff, 2014;
Lewontin, 2000; Leydesdorff & Fritsch, 2006)

QUADRUPLE HELIX



(Afonso et al., 2012; Ahonen & Hämäläinen, 2012; Carayannis & Campbell, 2012; Danilda et al., 2009; Deakin, 2014)

PENTA HELIX



MultiStakeholders

Calzada, I. & Cowie, P. (2017), Beyond Data-Driven Smart City-Regions? Rethinking Stakeholder-Helices Strategies. *Regions* 308 (ISSN: 1367-3882). [In print]

Calzada, I. (2016), (Un)Plugging Smart Cities with Urban Transformations: Towards Multistakeholder City-Regional Complex Urbanity?, *URBS, Revista de Estudios Urbanos y Ciencias Sociales Journal*, 6(2), 25-45. 6(2). 25-45. < Accessed on 10th November 2016 <http://www2.ual.es/urbs/index.php/urbs/article/view/calzada> >

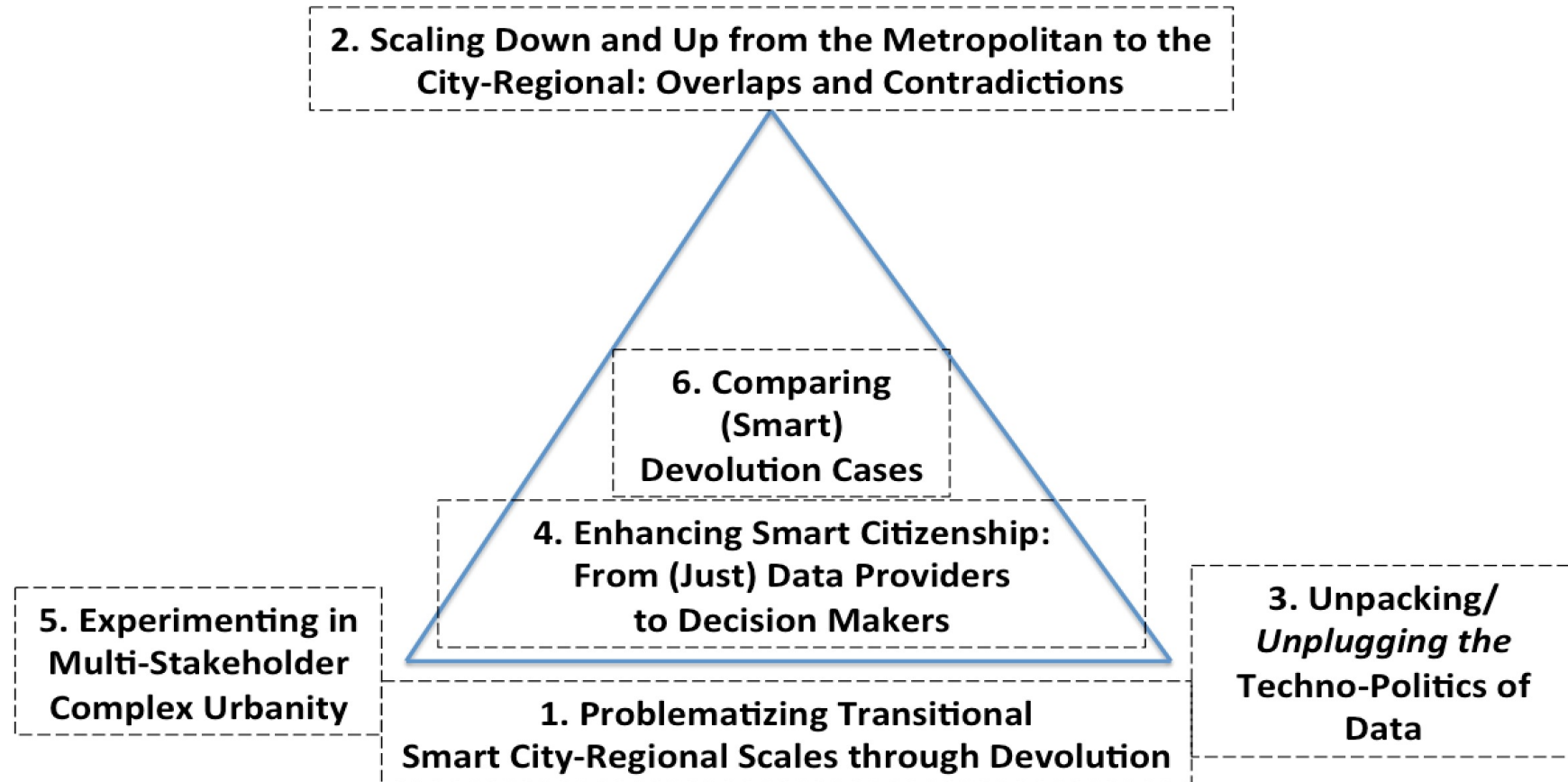
Calzada, I. (2013), Critical Social Innovation in the Smart City era for a City-Regional European Horizon 2020. *Journal of Public Policies & Territory P3T*. Vol 2, Nº 6 (2013): Social Innovation & Territory. Winter. pp. 1-20.



	Rethinking Stakeholders Helixes-Strategies		
	TH	QH	PH
Literature	• Lewontin	• Leydesdorff • Etzkowitz • Goddard	• Oström • Anttiroiko • Calzada
Multi-Stakeholders	• Public • Private • Academia	• Public • Private • Academia • Civic Society	• Public • Private • Academia • Assemblers: (Social) Entrepreneurs or/and Activists
Paradigms	PPP	Civic Universities	Urban Commons
Governance Scheme & Citizenship Response	Invisible Citizenship	Reactive Citizenship	Proactive Citizenship
Techno-Politics of Data	Technocratic Top-Down	Institutionalised Bottom-Up	Emergent & Complex Bottom-Up

Calzada, I. & Cowie, P. (2017),
[Beyond Data-Driven Smart City-Regions? Rethinking Stakeholder-Helixes Strategies](#). Regions 308. (ISSN: 1367-3882).[In Print]

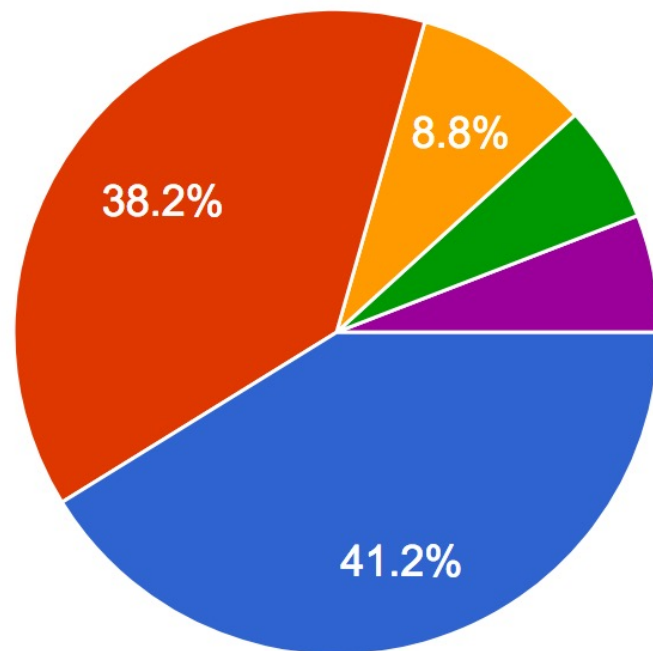




Six-Dimensional Conceptual Framework to Politicize Smart City-Regions

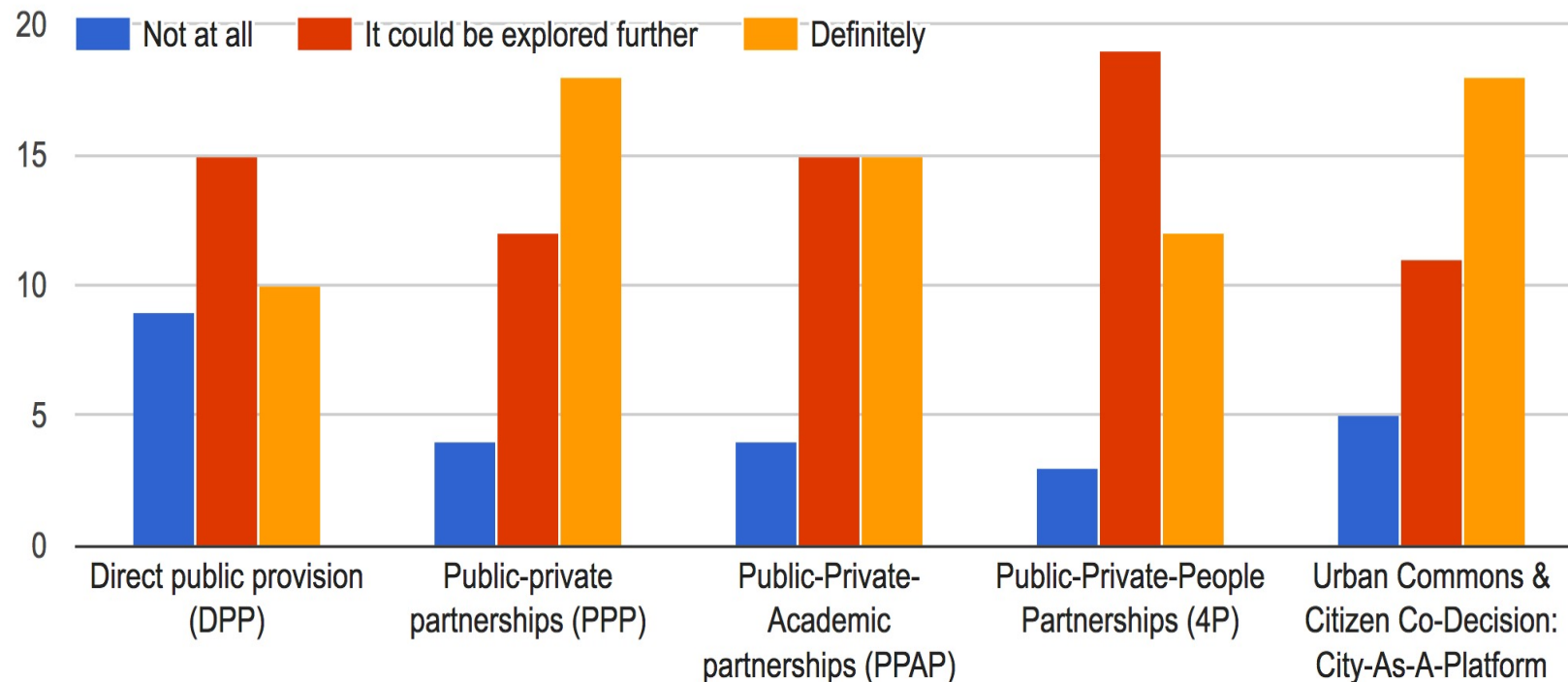
Calzada, I. (2017), Problematizing and Politicizing Smart City-Regions: Is Devolution Smart?, *Territorio*, Special Issue 'From Smart City to Smart Region. Meanings, Governance, Policies and Projects'. (ISSN: 1825-8689) [In Print]

1. Which is the most influential stakeholder group in your smart city?



- Option 1: Public
- Option 2: Private
- Option 3: Academia
- Option 4: Civic Society
- Option 5: Entrepreneurs/Activists

2. Could you assess the suitability level of the following types of business/social models for your smart city?



#ReplicateEU



LAUSANNE
(Switzerland)





#HerriSmartik

Basque Country

Smart City-Regional Strategy



EUSKADIKO UDALEN ELKARTEA
ASOCIACIÓN DE MUNICIPIOS VASCOS





#ZumaiaLab

Tourism Living Lab



Zumaia
(Basque Country/Spain)









#SmartRuralCommunities



Colombia & Mozambique
(Global South)





















5. Two Final Remarks/Questions:

- Why Does (Smart) Devolution Matter?
- Is Devolution Smart?

Smart City Devolution:

Geo `Economics`

Geo `Politics`

Geo `Democratic`

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<https://www.nature.com/articles/palcomms201794>

Calzada, I. (2017), Metropolitan and City-Regional Politics in the Urban Age: Why Does '(Smart) Devolution' Matter? Palgrave Communications 3 (17094): 1-17. In the Special Issue 'Politics of the Urban Age' (ISSN: 2055-1045).



Smart City Data Strategies will require considering:

1. **Transitions** towards more democratic and transformative Smart Cities (**Unplugging**)
2. Where **data-driven city strategies** will be sooner or later meet **techno-political** requirements by **multi-stakeholders' demands** (based on the ongoing **Penta Helix** scheme)
3. Which would suggest a more decentralised and distributed data strategies in cities and regions (**smart devolution**).

Thanks for your attention
Gràcies

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REFERENCES

- **Calzada, I.** & Cobo, C. (2015), Unplugging: Deconstructing the Smart City, *Journal of Urban Technology* **22**(1): 23-43. DOI: [10.1080/10630732.2014.971535](https://doi.org/10.1080/10630732.2014.971535).
- **Calzada, I.** & Cowie, P. (2017), Beyond Data-Driven Smart City-Regions? Rethinking Stakeholder-Helices Strategies. *Regions* **308**. (ISSN: 1367-3882).[In Print]
- **Calzada, I.** (2017), Problematizing and Politicizing Smart City-Regions: Is Devolution 'Smart'?, *Territorio Journal*, Special Issue 'From Smart City to Smart Region. Meanings, Governance, Policies and Projects'. (ISSN: 1825-8689) [In Print]
- **Calzada, I.** (2017), Metropolitan and City-Regional Politics in the Urban Age: Why Does (Smart) Devolution Matter? *Palgrave Communications* in Special Issue 'Politics of the Urban Age'. [In Print]
- **Calzada, I.** (2017), Metropolitan and Post-national Urbanity Beyond (Pluri)Nation(al)-States in the EU: Benchmarking Scotland, Catalonia and the Basque Country, *Journal on Ethnopolitics and Minority Issues in Europe* **13**(1): 51-78 (ISSN: 1617-5247).
- **Calzada, I.** (2017) From Smart Cities to Experimental Cities? In Vincenzo Mario Bruno Giorgino and Zachary David Walsh (eds), *Co-Designing Economies in Transition: Radical Approaches in Dialogue with Contemplative Social Sciences*. London, UK: Palgrave Macmillan. [In Print]
- Satyam, A. & **Calzada, I.** (2017), The Smart City Transformations: The Revolution of the 21st Century. Bloomsbury Academic and Professional Publishing: New Delhi.
- **Calzada, I.** (2017), The Techno-Politics of Data and Smart Devolution in City-Regions: Comparing Glasgow, Bristol, Barcelona, and Bilbao. *Systems Journal* (ISSN 2079-8954), Special Issue 'Smart Cities and Regions as Systems of Innovation' **5**(1): 18. DOI: [10.3390/systems5010018](https://doi.org/10.3390/systems5010018)
- **Calzada, I.** (2016), (Un)Plugging Smart Cities with Urban Transformations: Towards Multistakeholder City-Regional Complex Urbanity?, *URBS, Revista de Estudios Urbanos y Ciencias Sociales Journal* **6**(2): 25-45. < Accessed on 10th November 2016 <http://www2.ual.es/urbs/index.php/urbs/article/view/calzada> >
- Keith, M. & **Calzada, I.** (2017), European Urban Living Labs As Experimental City-to-City Learning Platforms, Urban Transformations ESRC report on 13th February 2017 Workshop entitled 'Experimenting with Urban Living Labs (ULLs) Beyond Smart City-Regions'. DOI: 10.13140/RG.2.2.20968.47361.
- Keith, M. & **Calzada, I.** (2016), European Smart Citizens as Decision Makers Rather Than Data Providers, Urban Transformations ESRC report on 14th November 2016 Workshop entitled '(Un)Plugging Data in Smart City-Regions'. DOI: 10.13140/RG.2.2.11175.14240.
- **Calzada, I.** (2011a), Towards the Basque City-Region: Comparative Territorial Benchmarking from the Social Innovation. Portland & Dublin case studies. Zamudio: Innovation Basque Agency, Innobasque, 2011. Depósito Legal: BI-3114/2011. CC 3.0. DOI: [10.13140/RG.2.2.22360.08960](https://doi.org/10.13140/RG.2.2.22360.08960).
- **Calzada, I.** (2011b), ¿Hacia una Ciudad Vasca? Aproximación desde la Innovación Social. Vitoria-Gasteiz: Servicio Central de Publicaciones del Gobierno Vasco. ISBN: 978-84-457-3180-2. DOI: [10.13140/RG.2.2.20682.36801](https://doi.org/10.13140/RG.2.2.20682.36801).
- **Calzada, I.** & Arranz, A. (2017), Translocal Strategies for Experimenting with Smart Tourism Labs in Zumaia: The Case of the Basque Coast Geopark, Basque Country (Spain), paper accepted and published in the Proceedings in the [1st UNWTO World Conference on Smart Destinations, Murcia \(Spain\)](#).