

Institution: University of Surrey		
Unit of Assessment: 17 Business and Management Studies		
Title of case study: Improving policies and practice for digital government transformation in Latin America		
Period when the underpinning research was undertaken: 2014 – 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Carla Bonina	Lecturer in Entrepreneurship and Innovation	September 2014 – present
Professor Alan Brown	Professor in Entrepreneurship and Innovation	September 2013 – July 2018
Dr Ben Eaton	Senior Lecturer in Digital Economy	September 2016 – May 2019
Period when the claimed impact occurred: 2015 – 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words) <p>Governments in Latin America face pressure to improve public services, increase efficiency and become more transparent through better use of digital technology. Surrey Business School research in Latin America impacted three areas: i) improving digital government policies: a tool was created for the Organisation for Economic Co-Operation and Development (OECD) to assess its digital government directives, and deployed in Colombia, helping its accession to the OECD; ii) fostering transparency and improving services with open government data, including new open data legislation and practice in Argentina, Costa Rica and the city of Buenos Aires; and iii) building capacity in governments by training over 300 public servants to improve digital data strategies in the region.</p>		
2. Underpinning research (indicative maximum 500 words) <p>Research at the Centre of Digital Economy (CoDE) at Surrey Business School investigated the social, technological, economic, managerial, organisational, political, and ethical implications of the digital economy. For the past six years, research in CoDE, led by Dr Bonina with Prof Brown and Dr Eaton has focused on understanding and implementing digital technologies to transform governments.</p> <p>Digital Government transformation</p> <p>Digital government describes the public sector imperative to improve government services using information and communication technology. Work by Brown [3.1] shows that in order to fully embrace digital government, <i>governments need to transform their practices, underpinning processes and the relationship with citizens and business alike</i>. The UK public sector is used as an illustration of the more ubiquitous challenges and improvements required to re-imagine and improve public services across the world [3.1]. The research found that to reform and modernise public services with digital technologies, governments need a radical transformation of their business models, leadership and processes, and to move to standardised building blocks where third-party suppliers can innovate. Building on this work, research led by Bonina [3.2] in Mexico shows that rather than being solely about digital technology, politics shape digital government</p>		

transformation in profound ways. [3.2] concludes that winning the political battle and *building political support is paramount to sustain a digital government transformation*.

Open Government and Open Data

Open government holds a culture of public policies and innovation practices based on the principles of transparency, accountability and citizen participation to foster democracy.

Brown's distinctive contribution in [3.1] proposes that fully embracing transformation and open government requires the use of open technologies and open data [data released by government in digital format, publicly available for anyone to use]. These are fundamentals of successful governmental digital transformation. For example, the release of public transport information allows the development of travel planning apps. CoDE's work in Latin America developed novel models to understand and deploy open data policies in government. Bonina and Eaton's research studies *how to cultivate open data platform ecosystems to foster innovation in Latin America* [3.3, 3.4]. This work builds upon knowledge generated in the corporate world and develops a practical model for governments to grow and nurture an ecosystem of innovators, needed to unlock the value of open data for innovation, transparency and better services. Based on in-depth case studies of Buenos Aires, Mexico City and Montevideo, [3.3, 3.4] the researchers specify a model based on tools and rules that the open government data authority needs to deploy. These include quality data, social tools like hackathons and clear rules to use and re-use data, so third-party innovators can build new valuable open data-driven services. Using empirical evidence collected by collaborator Scrollini (of the Latin-American Open Data Initiative - ILDA), Bonina's work studies which governance conditions can best *exploit the benefits of open data in a sustainable and inclusive way* [3.5]. This employs a multi-method approach using in depth case studies in Peru, Uruguay and Mexico, and finds that i) collaboration among multiple stakeholders promises better chances to scale and improve how open data can be used to solve social and developmental problems, and ii) the existence of clear rules to govern the process of creating and sharing resources in open data repositories increases the levels of engagement and use within communities.

3. References to the research (indicative maximum of six references)

[3.1] Brown, A., Fishenden, J., and Thompson, M. (2014). *Digitizing government*. Palgrave Macmillan. <https://link.springer.com/book/10.1057%2F9781137443649>

[3.2] Avgerou, C., and Bonina, C. (2020). Ideologies implicated in IT innovation in government: a critical discourse analysis of Mexico's international trade administration, *Information Systems Journal*, 30(1), 70-95. DOI: <https://doi.org/10.1111/isj.12245>.

[3.3] Bonina, C. and Eaton, B. (2020). Cultivating Open Government Data Platform Ecosystems through Governance: Lessons from Buenos Aires, Mexico City and Montevideo, *Government Information Quarterly*, 37(3), [101479]. DOI: [10.1016/j.giq.2020.101479](https://doi.org/10.1016/j.giq.2020.101479)

[3.4] Bonina, C., Eaton, B., and Henningsson, S. (2018). Governing Open Data Platforms to Cultivate Innovation Ecosystems: The Case of the Government of Buenos Aires. In *Proceedings of the 39th International Conference on Information Systems (ICIS)* Atlanta, GA: Association for Information Systems. (Acceptance rate: 26%).

[3.5] Bonina, C. and Scrollini, F. (2020). Opening up and governing health data in Latin America, in *Making Open Development Inclusive*, edited by M.L. Smith and R. Seward, MIT Press. ISBN: 9780262539111 DOI: [10.7551/mitpress/11635.003.0017](https://doi.org/10.7551/mitpress/11635.003.0017)

4. Details of the impact (indicative maximum 750 words)

Despite the recognised potential of digital technologies to improve government efficiency, accountability and relationships with citizens and business, digital transformation in Latin American governments remains limited. Regional governments face challenges including: i) a lack

of government transparency and associated lack of trust; ii) citizens and businesses lack access to or face inefficient public services; and iii) a lack of technical capacity within governments and their ecosystem of digital and data related skills. Researchers addressed these challenges, impacting government agencies, citizens and businesses in Latin America in three areas: improving digital government and open data policies; transparency and open data mobilisation and engagement; and capacity building for public servants.

Improving digital government policies in OECD and Colombia

CoDE's research [3.1, 3.2] underpinned Bonina's advisory work for the OECD and the Colombian Government - *Assessing the Impact of Digital Government in Colombia* [5.1]. Bonina was commissioned to design an impact assessment framework [5.1, chapters 1 and 2], a tool creating two distinctive contributions. First, impact on the OECD itself: the OECD's Council on Digital Government issues directives to ensure governments support the development and implementation of strategies bringing governments closer to citizens and businesses. Using the tool, Bonina enabled the OECD to assess its digital government directives in Member countries. Barbara Ubaldi, OECD Lead of Digital Transformation stated the impact assessment work in Colombia *"is helping the OECD to strengthen the work we are doing with other countries, and we see a fundamental value in its availability and measurement strategy"* [5.2a]. Second, for governments deploying the OECD directives: the Colombian Government adapted their Digital Government Strategy, including new indicators and policies in line with OECD recommendations made by Bonina, for example, linking financial resources with policy goals, and developing a clear logic model, and metrics communicating the value of the Strategy for citizens. *"Colombia became the first country that, without being a member of the OECD, has adopted the recommendations of the OECD Council on Digital Government"*, Government of Colombia [5.2b]. Research was timely as Colombia was negotiating its accession as a member country to the OECD, which later happened in May 2018.

Improving open data practice and policy in Argentina

National and city level policies in Argentina were influenced by [3.3, 3.4, 3.5] under Bonina's lead. The National Government of Argentina acknowledged Bonina contributed to stronger open data policy both as a direct advisor to the Government and working for the World Bank assessing Argentina's open data strategy. The Undersecretary of Modernization in Argentina commented *"Carla's close collaboration, and her recommendations regarding how to engage the private sector in Argentina, was invaluable in setting the right direction for the next stage of our open data policy"* [5.3]. [3.3] served to build the World Bank report on open data for business, authored by Bonina, with recommendations to be adopted by the country [5.4]. In 2017, Argentina was amongst the top 17 open data performers of the world (<https://index.okfn.org/place/ar/>).

Buenos Aires, a leading city in deploying open data in the region, recognised the unique contribution of Bonina's work to their new open data portal (<https://data.buenosaires.gob.ar/>) and the Open Data Strategy to engage innovators in building services with open data, launched in November 2019 (<https://datosgcbba.github.io/guia-datos/politica-datos-abiertos/>). Bonina's work *"has had immense value in how we construct a more responsive, transparent and innovative government with open data. Her work has not only been invaluable to our city but to many others in the region who take the open data policy of Buenos Aires as an exemplar to follow"* [5.5].

Fostering open data policies and community engagement across Latin America

Bonina's research informed advice given by Latin American Open Data Initiative (ILDA), a regional think tank promoting inclusive development through collaboration, use of open data and active participation of communities. Bonina's work [3.3, 3.5] supported and encouraged leaders in governments, civil society organisations and the private sector to harness open data for development in an inclusive and sustainable way. ILDA's Executive Director [5.6] recognised work *"has been crucial to grow the institutional capacity and long-term sustainability of ILDA, and ultimately contributing to achieve our region-wide mission"* [5.6]. Specifically, Bonina's research led to: (i) new legal norms, such as in the case of Costa Rica where Bonina's contribution *"was invaluable to support the passage of our Executive Decree on Open Government, a milestone for transparency and democracy in our country."* [5.7]; (ii) community development and agenda

mobilisation around open data, being a regular referent for data re-utilisation and private sector engagement in a group of 600+ representatives from governments, civil society, academia and the private sector (growing from 40 in 2012); and iii) developing new practical tools to inform open data policy, including an impactful map gathering 600+ organisations and 700 projects of open data in the region (www.explorat.am) [5.6], used to build collaborations regionally, as stated by the Inter-American Development Bank (IADB): “governments, civic entrepreneurs or donors will be using [this map] to recognize, escalate or learn about the social and economic value that these projects and organizations are generating in Latin America” [5.8].

Capacity building in digital transformation and open data across Latin America: Costa Rica, Uruguay and Argentina

Bonina's work directly contributed to capacity building in three countries. Between November 2017 and July 2019, over 300 public servants from Costa Rica, Uruguay and Argentina were trained in Open Government and Open Data through an online course co-designed by Bonina for ILDA. The course builds directly on [3.3] and [3.5], with Bonina overseeing the course and supporting data re-users and innovators in the community, a contribution acknowledged by ILDA [5.6] and Inter-American Development Bank (IADB) [5.8]. Training was sponsored by the IADB and deployed in partnership with local universities. The 40-hour course equips public servants with key skills to lead open data projects in their organisations and improve the services they provide to the public [5.9, 5.10]. Course retention (76%) and completion (76%) rates are almost double those of massive open online courses (e.g., Coursera ~45% and 40% respectively) and has a high satisfaction rate (78%). A year after the course ended in Costa Rica, 75% of attendees reported they had become open data advisors in their organisations, and 67% had greater responsibility for open data and open government [5.9, 5.10]. A community of practice of 100+ member's on Facebook was established in Costa Rica as a result [5.7, 5.9]. In Mendoza, the Government created the first provincial commission of its kind in the country for Open Government and Open Data, building on [3.3, 3.4 and 3.5], recognising the “invaluable contribution of Dr Carla Bonina in the set up and development” of the Commission that “will bring together government, private sector, academia and civil society to work together to enhance innovation, efficiency and transparency” [5.11].

5. Sources to corroborate the impact (indicative maximum of 10 references)

[5.1] OECD, *Assessing the Impact of Digital Government in Colombia: Towards a new methodology*, OECD Digital Government Studies, OECD Publishing, OECD Paris, 2017 <https://doi.org/10.1787/9789264283282-en>. Dr Bonina work acknowledged in chapters 1 & 2.

[5.2] Government of Colombia, digital government news; **a)** “Colombia is helping to strengthen the work OECD with other countries” 1/09/2017 (PDF); **b)** “The OECD highlighted Digital Government strategy that implements ICT Ministry in the country”, 27/10/2017, (<http://estrategia.gobiernoenlinea.gov.co/623/w3-article-61377.html>)

[5.3] Testimonial by National Government of Argentina, Undersecretary of Public Innovation & Open Government, Cabinet Office, that acknowledges impactful work by Dr Bonina on digital transformation and open data at national level. (PDF)

[5.4] World Bank reports written by Dr Bonina on “Open data for business” (Dec 2018) and “Open Data Readiness Assessment” (Jun 2019) in Argentina. (PDF)

[5.5] Testimonial by the Undersecretary of Strategic Management and Institutional Quality, General Secretariat Government of the City of Buenos Aires, which acknowledges the role of Dr Bonina to develop and implement the new Open Data Strategy and the Open Data portal in the city. (PDF)

[5.6] Letter by ILDA's Managing Director that recognises work by Dr Bonina to move the open data agenda forward in the region, her capacity building contributions and community engagement. (PDF)

[5.7] Letter by Deputy Minister Presidency of Costa Rica acknowledging impact of Dr Bonina's work as part of ILDA with regards to new open government legislation and capacity building during 2018. (PDF)

[5.8] Testimonial from the Inter-American Development Bank, Senior Modernization of the State Specialist, that acknowledges work of Dr Bonina on regional map of open data and capacity building in Costa Rica, Uruguay and Argentina. (PDF)

[5.9] IADB/ILDA independent reports on open data courses in **a.** Costa Rica, Mendoza and **b.** Uruguay. (PDF)

[5.10] IADB blog with summary and evaluation re open data courses in Costa Rica, Uruguay and Mendoza, available at: <https://blogs.iadb.org/conocimiento-abierto/es/el-futuro-es-abierto-desarrollando-capacidades-de-datos-abiertos-y-acceso-a-la-informacion-en-el-sector-publico/>

[5.11] Letter from the Government of Mendoza, Argentina, that acknowledges influence of Dr Bonina's work to create the first open data council in the province. (PDF)