


# Independent Demonstration Projects: A Teaching Case on Innovation

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## ABSTRACT

Independent Demonstration Projects is a strategy to innovate for government without prior approval of officials. The innovator implements their idea as a minimum viable product, independent of the government. Once the innovation is operating, it creates pressure on officials to sustain and expand it with government resources. This case illustrates the strategy with a factual example of innovating public access to government records in Virginia. The narrative presents two major decisions: (1) What strategy should the innovator use to get the government to make data available to the public? and (2) Once the innovator created a demonstration version, what else did he need to do so the government would adopt his innovation? The narrative is followed by teaching notes with suggested discussion questions. The case can be useful for teaching government innovation, civic hacking activism, administrative burden, and open government.

## KEYWORDS

Administrative burden; civic hacking; guerrilla government; independent demonstration project; innovation; open data; open government; teaching case

Parts A, B and C are the narrative of the case. They are followed by Teaching Notes that suggest classes for which this case may be useful, provide other teachable examples of Independent Demonstration Projects, and relate the themes of this case to Public Administration literature. Finally, the Teaching Notes provide discussion questions for each part of the narrative.

## Part A: A private citizen decides to innovate for the government

In 2014, Waldo Jaquith lived in Virginia and worked as the Director of a small nonprofit organization called U.S. Open Data (Open Data, 2016). He was nine years out of college, and ever since he was a teenager he had led projects to make government information available to the public on the Internet (Jaquith, 2005; Spence, 2022). Jaquith became familiar with the work of a company called OpenCorporates, which collects information from governments around the world about the registered owners of companies and makes it available online in formats that users can search and download (OpenCorporates, n.d.). Jaquith discovered that data from his own state was not available from OpenCorporates, and not available from the Virginia government in a usable form, even though it was legally public information (Jaquith, 2016c).

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Access to records of who owns businesses matters, because the public needs to know who is legally responsible for a company that affects them. If a consumer wants to sue a business, they need to know who to file suit against, and it is often not the same as the name on the storefront (Daynard, 1980; King, 1977). Journalists and civil society groups investigating corruption, money laundering and other crimes need to trace the true owners of companies (Tiwari et al., 2020). Neighbors need to find who is responsible for a facility that is causing blight or pollution (Schoenbaum, 1971).

Jaquith was part of two informal movements of people who care about such issues. One is the “open government data” movement, which is concerned that information the government holds should be available to the public, not only on paper or other formats that require a human to examine, but in computer-readable formats that the public can search and analyze (Attard et al., 2015; Xarxa d’Innovació Pública, 2014; Wirtz et al., 2016). The other is the “civic technology” movement, which is concerned that information technology should make the public’s interactions with their government easier and more effective (Ermoshina, 2018; McNutt et al., 2016; Schrimmer, 2016).

Jaquith searched the website of the government agency that registers companies in Virginia, which is the State Corporation Commission. Here is how he described it in his blog:

In Virginia, you can’t just get a list of all of the registered corporations. That’s not a thing. If you dig for a while on the State Corporation Commission’s [SCC] website, you’ll find their “Business Entity Search,” where you can search for a business by name. But if you want to get a list of all businesses in your county, all businesses that have been formed in the past month, all businesses located at a particular address, etc., then you’re just out of luck.

Except. The SCC will sell you their database of all 1,126,069 companies. It’s not cheap, at \$150/month, with a minimum three-month commitment. You have to sign a five-page contract, and the data is a hot mess, of no value to anybody other than a programmer. (Jaquith, 2014c)

The innovation that Jaquith wanted was for the State Corporation Commission records to be available to the public for free in a usable form. Creating this innovation was not part of Jaquith’s job. He did it in his spare time and called it his hobby (Jaquith, 2014c). He said he did it because he was embarrassed that his home state was a blank spot for corporate data (Jaquith, 2016c).

### ***Decision 1: What strategy should Jaquith use to get the government to make the data available to the public for free in a usable form?***

At this point, Jaquith faced a choice of what strategy to use. One possible strategy would be trying to present officials at the State Corporation Commission (SCC) with an argument to convince them to make the data available. The SCC has public comment procedures for rulemaking proceedings and regulatory cases, but not for administrative matters such as this (State Corporation Commission (Virginia), n.d.). So Jaquith would have had to try to get the attention of SCC managers somehow, such as by sending a letter or requesting a meeting. He could have tried to convince other citizens that they would benefit from the data, and tried to mobilize them to approach the SCC along with him. We cannot know whether this strategy would have worked, but we do know two conditions that made it less likely to work.

First, the SCC was already committed to a plan for a new computer system that did not include the ability for the public to download the business registration data. SCC had issued a Request for Proposals in 2012 to replace its core computing system. The new system was to include a more flexible search for business entities, but not the ability for the public to download the entire database to do their own analysis, as Jaquith wanted (SCC (Virginia), 2012, p. 65). In 2014, as the SCC was about to award the contract, a losing bidder submitted a protest claiming that SCC's Chief Administrative Officer exercised undue influence because of a conflict of interest (Auditor of Public Accounts (Virginia), 2015). This led to a special review by the state auditor, appeal to the Virginia Supreme Court, and legislation changing Virginia's procurement laws for the SCC (Geiger, 2015). Since the SCC had very publicly committed to defending the new computer system as they specified it in the procurement, it does not seem they would have been receptive to a citizen approaching them to change its features.

Second, even if Jaquith could get the SCC's attention, he only had predictions to try to persuade them with, not proven facts. He could say that the public would access the SCC's data if it was available and would make valuable use of it. He could say that a system to make the SCC's data available would not be too expensive, and that it would not have unforeseen adverse consequences. But all these arguments would be speculation, since he was arguing for something that did not yet exist.

Jaquith chose a different strategy. Instead of starting by presenting an argument to the SCC and trying to get them to pay attention to it, he started by implementing the innovation himself. Here is how he described it in his blog:

So, naturally, I wrote the SCC a check for \$450 at the end of April, bought the data, and now give it away for free . . . I've created a website, creatively named "Virginia Businesses" where non-programmers can access that data and do things with it. I've barely gotten started on the website—at this point, one can download individual datafiles as either CSV or JSON, download the original data file from the SCC, or search through the data. (Jaquith, 2014c) [CSV and JSON are file formats used to share data between computers.]

But that was not the end of his plan. "I didn't want to settle for buying public data, indefinitely, for \$1,800/year. So I set about trying to convince the Virginia State Corporation Commission to stop selling the data, and to instead give it away" (Jaquith, 2016c).

Jaquith was using a strategy called Independent Demonstration Projects, which is a way to innovate for government without prior approval of officials (Reed, 2022). The strategy has two steps:

*Step 1.* Implement the innovation on a temporary basis as a minimum viable product, independent of the government.

*Step 2.* Once the innovation is implemented, it can create pressure on officials to sustain and expand it using government resources.<sup>1</sup> This pressure can happen three ways:

- **Proves the innovation is feasible.** – When the innovation is up and running, it can disprove claims by officials that it cannot be done, or would be prohibitively expensive, or would have catastrophic consequences.

- **Builds constituency of supporters.** – When users have a chance to benefit from the innovation, and other members of the public see these benefits, they may want the government to keep it going on a permanent basis.
- **Removes officials’ power to block innovation.** – Once the Independent Demonstrated Project is running, officials can no longer prevent the innovation. They can either adopt the innovation with government resources, or have it continue outside their control and possibly to their political embarrassment.

## Part B: Outreach, resources, and proving value

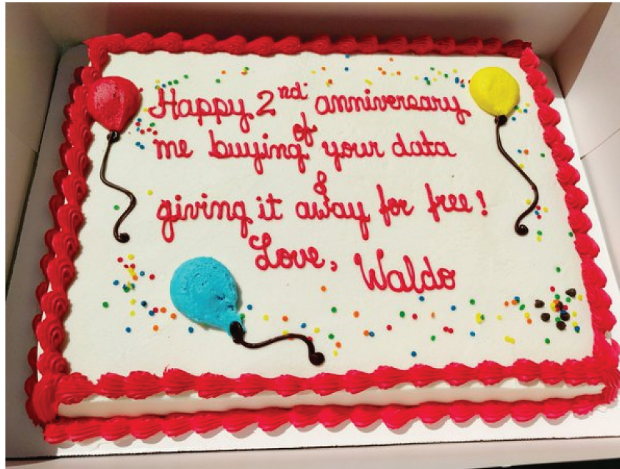
### ***Decision 2: What did Jaquith need to do, after his website was running, to make the State Corporation Commission adopt his innovation?***

Outreach was key to Jaquith’s project, both to attract resources and to engage users to show that his innovation was valuable. The major resource for the project was Jaquith’s own technical skill, but his relationships from previous work on open government allowed him to obtain additional resources. Two nonprofit organizations provided free legal advice to help him assess the risk of giving away the SCC’s data after signing its five-page purchase contract. A local internet service provider donated free hosting service for his website. And after the website was running, a foundation awarded him a \$5,000 grant, so Jaquith did not wind up paying for the data from his own pocket (Jaquith, 2014c).

Just getting the website running was not enough to create pressure on the government to adopt the innovation. Jaquith conducted outreach to show the value of his innovation, publicize it, and in his words, “goad the SCC into providing free data” (Jaquith, 2021). He described how one opportunity arose:

This experimental, unadvertised site hadn’t been up for long when I got an e-mail from an employee of a municipal government in Virginia. She’d stumbled across the site, and hoped I could provide her with a list of every business located in her town. The reason, she explained, was that they had no way of knowing what businesses existed within their boundaries. The state doesn’t just withhold data from the public—they withhold it from localities, too. They had no way of knowing which businesses were failing to pay their business license fees or business property taxes. (Jaquith, 2014a)

Jaquith used this opportunity to show the value of his innovation. He worked with two municipal governments in Virginia to analyze the data on his website and produce lists of businesses that were registered with the State Corporation Commission as being located in those municipalities. One of the municipalities, Charlottesville, gave Jaquith a spreadsheet of all the businesses that were licensed to operate in their city. Jaquith compared it to the data on his website, and identified 1,900 businesses that were registered with the state as being in Charlottesville but were not licensed there. Not all businesses are required to obtain a local license, but Jaquith estimated that if even 20% of the companies he identified did require a local license and could be made to pay the license fee, that would bring the city \$600,000 more revenue every year (Jaquith, 2014a). He publicized his findings in blog posts and on social media (Jaquith, 2016a). It was covered in the press, with one newspaper headline reading, “Virginia Website of SCC Data Tries to Pin Down Unlicensed Businesses” (Delesline, 2015).



**Figure 1.** The “passive-aggressive sheet cake.” (Photo by Taber Bain dedicated to the public domain under CC0).

The outreach efforts snowballed. A newspaper reporter covering the story interviewed an official of yet another municipality in Virginia, who apparently had not heard of Jaquith’s website. When the reporter explained it, the municipal official gave a quote that the website “could provide a very positive benefit for us” (Delesline, 2015).

Jaquith kept up his publicity efforts. On the second anniversary of his website, he had a cake delivered to the office of the State Corporation Commission. Jaquith called it a “passive-aggressive sheet cake.” The lettering on the cake read, “Happy 2<sup>nd</sup> anniversary of me buying your data & giving it away for free! Love, Waldo” (Figure 1). This reached several audiences important to the project. The cake was discussed in blogs that reached people in the open government movement (Jaquith, 2016c; S.F. Team, 2016). A report that ran in some Virginia newspapers called it “pastry-fueled prodding by an open data advocate” (Koma, 2016). Jaquith sent a tweet with a picture of the cake on Twitter, including the usernames of the SCC and its Chief Administrative Officer so even people at SCC who did not see the cake would know about it (Jaquith, 2016a). As Jaquith later said, “I figured they’d put it in the break room, he can’t eat a [whole] sheet cake, and dozens or hundreds of employees will hear, ‘Hey, free cake,’ and think, ‘What? We sell our data?’” (Koma, 2016) This apparently worked, because he “started having informal conversations with an IT staffer at the commission, and he soon began getting calls from people who said the commission advised them to contact Jaquith rather than pay for the data.” (Koma, 2016)

### **Part C: Government adopts the innovation**

On July 1, 2016, the State Corporation Commission (SCC) announced that it would no longer sell subscriptions to its database, and would instead post the data on the internet for anybody to download for free (Jaquith, 2016b). This was a little over two years after Jaquith started posting the data. Here are excerpts from a newspaper story about the SCC announcing free public access to its data:

“It’s public information, and there’s been lots of requests for making the [databases] more accessible,”<sup>2</sup> Ken Schrad, the director of the commission’s Division of Information Resources, told StateScoop. “And it’s going to be provided in a format that’s more useful to people. The people who had been subscribing to the service were basically getting raw data and had to be somewhat sophisticated to know how to manage the data or manipulate it for their particular uses.”

...

Schrad notes that they were “aware” of Jaquith’s efforts, but suggested that it took a while for the agency to do away with its policy of charging for the data, since it originated from when they could only share the data on tapes.

“Keep in mind, we’re still working off a system that was first built in the mid 1980s, so as the commission improves the databases and continues to upgrade its own technology, the capabilities become more possible as result,” Schrad said.

That claim puzzled Jaquith [who does not believe] there’s any connection between technology concerns and releasing the data for free.

“I have never heard any government make such a claim before, probably because the claim is untrue on its face,” Jaquith said. “I’m not sure why he’d say that, unless it’s that the agency just doesn’t want to admit that they changed their minds about something” (Koma, 2016).

According to the newspaper story, the SCC official declined to say whether he remembered receiving the passive-aggressive sheet cake (Koma, 2016). Six years later, when this case is being written, the SCC’s web site provides free public access to search the data by numerous fields and to download the complete data file in CSV format that will open in spreadsheets (<https://cis.scc.virginia.gov/EntitySearch/Index>, <https://cis.scc.virginia.gov/DataSales/DownloadBEDataSalesFile>).<sup>3</sup> It is a resource for academic research and for commercial uses (Chamber of Commerce, 2021; University of Richmond, n.d.). Because the Virginia data is now freely available, it is included in the OpenCorporates website, where users can search and analyze company ownership data from around the world (OpenCorporates, n.d.). Jaquith’s Independent Demonstration Project has succeeded.

## Teaching notes

This case can be used to teach a variety of topics, including:

- Innovation in the Public Sector
- Open Government, Open Data
- Civic Technology, Public Interest Technology
- Administrative Burden
- Activism, Social Entrepreneurship, and Civic Hacking
- Change-Oriented Organizational Citizenship, Guerrilla Government
- Ethics in the Public Sector

The case supports the Network of Schools of Public Policy, Affairs, and Administration (NASPAA) core competencies of “participate in and contribute to the public policy process,” “analyze, synthesize, think critically, solve problems and make decisions,” and

“articulate and apply a public service perspective” (Network of Schools of Public Policy, Affairs, and Administration [NASPAA], 2019).

### ***Other teachable examples of independent demonstration projects***

The following video clip shows Carl Malamud, a pioneer of Independent Demonstration Projects, discussing his strategy. It includes an Independent Demonstration Project that triggered a U.S. Supreme Court case: [https://www.youtube.com/embed/FdpVz39LA0Q?&autoplay=1&start=725&end=853&cc\\_load\\_policy=1](https://www.youtube.com/embed/FdpVz39LA0Q?&autoplay=1&start=725&end=853&cc_load_policy=1) (Malamud, 2021).

Another example is the case of the “Nevada four” in O’Leary (2019, pp. 42–50). These were a group of government employees who acted on their own initiative to protect wetlands. They raised private money to buy water rights, in order to “embarrass the government” into doing the same with government money. O’Leary did not use the term “Independent Demonstration Project” but the case she documented is an excellent example.

### ***Relation to literature on non-hierarchical innovation and citizen participation***

Borins (2000a, 2000b) studied government innovations that were judged best in competitions in the U.S. and Canada. He found that the majority were not initiated by politicians or agency heads, but by lower-level public servants or persons outside government (Borins, 2000b, p. 53). The Independent Demonstration Project strategy is used by innovators who are inside or outside government, acting as individuals or in groups. The “Nevada four” case mentioned above is an example of a group of government employees using the strategy (O’Leary, 2019, Chapter 2). In Jaquith’s case, he acted initially as an individual, although he obtained some grant funding and volunteer help once the project was underway (GitHub.com, 2022; Shuttleworth Foundation, 2022).

Jaquith’s project is an example of civic engagement, defined in the literature as “people participating together for deliberation and collective action” (Cooper, 2005, p. 534). “Citizen participation” is a type of civic engagement in which a government agency provides a mechanism for the public to participate in its decision-making (Bingham et al., 2005; Glimmerveen et al., 2022; Strange, 1972). In this case, the State Corporation Commission did not offer a mechanism for citizen participation in determining how it made data available. Jaquith created his own mechanism of participation by creating his website to give away the data.

This case can also be seen as an instance of influence between government agencies and other parties in networked government (Provan & Milward, 1991). The parties interacting in this network were Jaquith, other participants in the open government and civic technology movements, and eventually the SCC although it did not start as a willing participant.

### ***Relation to literature on administrative burden and civic technology***

“Administrative burden” means the learning costs, psychological costs, and compliance costs that citizens face in their interactions with government (Moynihan et al., 2015, p. 43). The literature on administrative burden has mostly examined its effect on recipients of government benefits such as Medicaid, food vouchers, and child support grants (Barnes, 2021; Heinrich, 2016; Moynihan et al., 2015). In this case, administrative burden affected

public access to information. The State Corporation Commission data was legally public information, but administrative burdens of cost, contractual restrictions and technical obscurity prevented the public from using it effectively. In this case, and in many others, the civic technology movement brings both the mind-set that administrative burden should be reduced and the ability to create innovations that reduce it (McNutt et al., 2016).

### **Discussion questions for Part A**

- (1) What administrative burdens did the State Corporation Commission impose on people who wanted to use its corporate registration data? Who might these administrative burdens affect?

Teaching Note: Burdens included the \$150/month subscription fee, legal risk from the five-page contract, and the need for technical work to convert the data into a form that could be analyzed. The burdens could prevent use of the data by individuals trying to identify the legal owner of a business to file a complaint or small claims lawsuit, advocacy groups trying to identify owners of business that are not meeting obligations to the community, researchers who analyze patterns of ownership of businesses, etc.

- (2) What are alternative strategies Jaquith could have used instead of an Independent Demonstration Project? What are the advantages and disadvantages of other strategies compared to Independent Demonstration Projects? (This is Decision 1 in the text of the case.)

Teaching Note: Alternative strategies Jaquith could have used include lobbying the State Corporation Commission, trying to interest elected officials in the problem, and organizing protests. One difficulty with other strategies is that the value and feasibility of the innovation are unproven, and therefore less convincing, until it is implemented. One advantage of Independent Demonstration Projects is that the public starts to benefit from the innovation immediately, rather than if and when government officials are convinced to implement it.

- (3) Was it ethical for Jaquith to give away information that the government was selling access to?

Teaching Note: As Jaquith said in his blog (quoted above), anybody could look up business names one-by-one on the State Corporation Commission website, so the SCC was not requiring people to pay to see individual business registrations. They were charging \$150 per month for access to the entire data file. Jaquith found that there were only six subscribers before he subscribed (Jaquith, 2014c), so the SCC was collecting only \$10,800 per year. Nonetheless, by giving away access Jaquith interfered with the government's ability to recover costs from users of the data, rather than taxpayers. Was this ethical? Does it matter that by giving away the data in a more usable form Jaquith helped local governments, and perhaps other users, to benefit from the data?

**Discussion questions for Part B**

- (1) The case describes how Jaquith reached out to several types of potential users and supporters of his project. What other types of potential users and supporters might it have been useful for Jaquith to reach out to?

Teaching Note: The case describes Jaquith reaching out to employees of municipal governments in Virginia, to the press, and to employees of the State Corporation Commission (Part B above, Delesline, 2015; Jaquith, 2014a; Koma, 2016). Among the other potential supporters it might have been useful to reach out to are:

- Elected officials, such as members of the State legislature or the Governor.
  - Civil society organizations that could benefit from access to the data, such as those concerned with money laundering, corruption, or pollution
  - Businesses that could benefit from access to the data, although some of these may have been obtaining the information indirectly through the five data brokers and one law firm that subscribed to SCC's database (Jaquith, 2014b).
- (2) Jaquith was not employed by the government when he made his website. How would it be different using the Independent Demonstration Project strategy to innovate without approval of officials in an agency where one is employed?

Teaching Note: For a well-researched example of government employees using the Independent Demonstration Project strategy, see O'Leary (2019, pp. 42–50). Employees have some advantages in using this strategy. They may have better knowledge of what innovations are needed. Also, when an innovation is created by employees, even without officials' approval, the officials may be more willing to later adopt the innovation because they can claim credit for it happening under their leadership. This happened in the case of a diversity program in the U.S. Forest Service, which employees started without management support, but which management later adopted as an official program (Watson, 2015). A disadvantage for employees is that they may risk violating rules against unapproved use of agency resources, release of nonpublic information, or use of official position for unapproved purposes. Even if employees do not violate any rules, they may still alienate officials who can influence their careers.

- (3) Was it proper for Jaquith to send the “passive-aggressive sheet cake” to the SCC? Would the ethics of sending the cake depend on what was written on it? Would the ethics be different if Jaquith had some other object delivered, rather than a cake?

Teaching Note: This can prompt discussion of the ethics of subjecting government officials to various acts of protest. While Jaquith's cake could only embarrass the SCC officials, other acts of protest could constitute threats or harassment. This can be compared to tactics of 1960's community organizers (Alinsky, 1989, pp. 126–164) and more recent actions against public health officials (Fraser, 2022) and local government officials generally (Williams et al., 2022).

### **Discussion question for Part C**

- (1) Did Jaquith's project cause the State Corporation Commission to start posting its data for free, or was it just a coincidence?

Teaching Note: In the newspaper excerpt in Part C, the SCC official admitted being aware of Jaquith's project, but did not credit it with causing them to provide their data for free. One factor that makes it seem unlikely the SCC would have acted without Jaquith's project is that the SCC was in the midst of a disputed effort to procure a new core computing system, as recounted in Part A above. SCC's specifications for the new system did not include the ability for the public to download the business entity database. Without the pressure created by Jaquith's project, the SCC may not have been willing to change a system that it had publicly defended as meeting its requirements.

### **Additional teaching resources**

This teaching case is in a short form adapted to printing in a journal. Faculty are welcome to contact the author to obtain without charge a larger version of the case materials including a slide deck for class.

### **Notes**

1. In Jaquith's case and most others, the innovators want the government to adopt the innovation so that the Independent Demonstration Project can end. But in at least one case the innovators eventually received government support to continue their Independent Demonstration Project as an official government project (Watson, 2015).
2. "Accessible" in this quote appears to mean for people in general, rather than specifically for persons with disabilities. But making the data available as a CSV file also made it usable by spreadsheet screen readers and other aids to persons with disabilities.
3. Archived versions of these web pages are available from the Internet Archive Wayback Machine at <https://web.archive.org/>.

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### **Notes on contributor**

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