

Open Data APIs

Best practices, mistakes and lessons learned.

Deck: <http://bit.ly/opendataladder>

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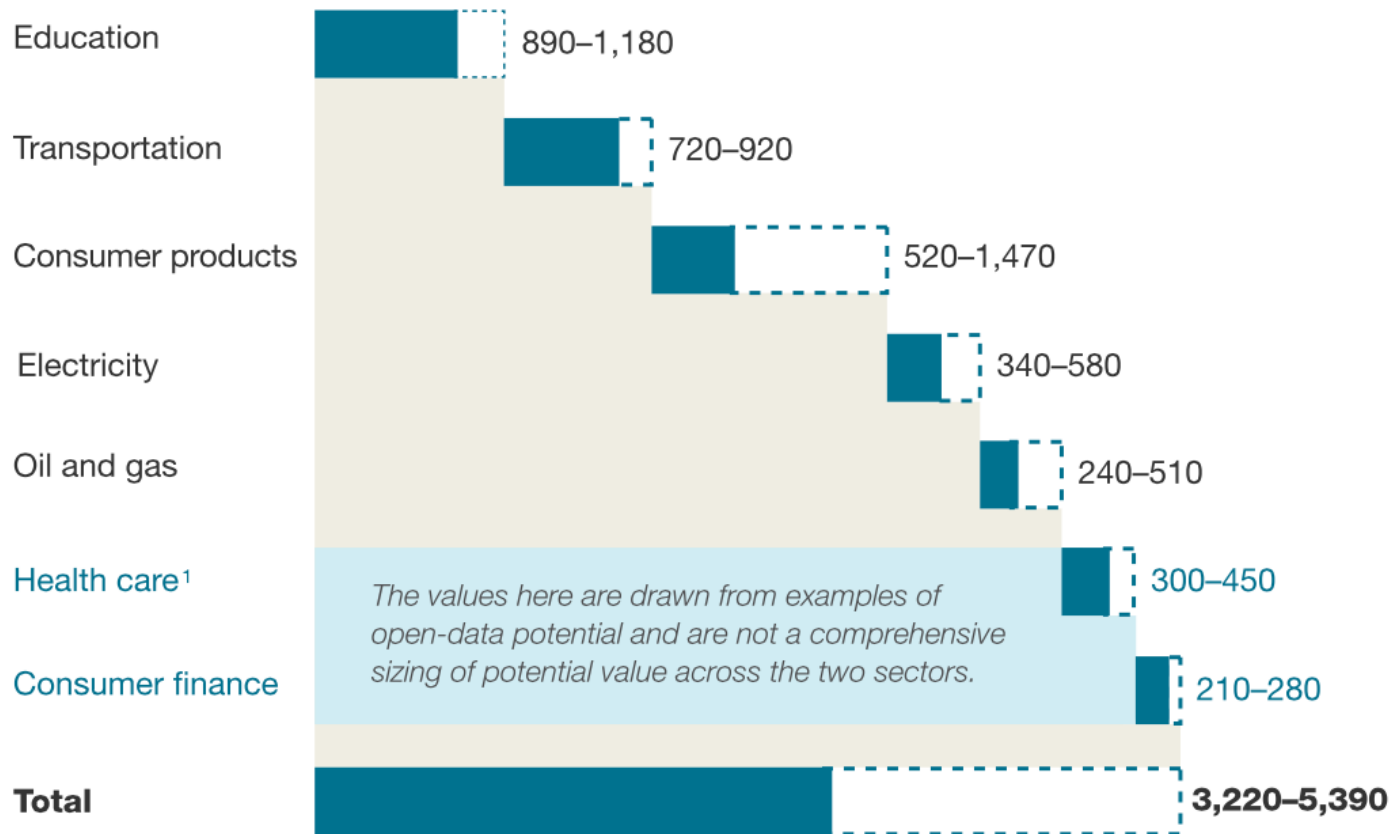
November, 2015

 @inadarei

 ca
technologies

McKinsey Says OD Can Unlock: \$3-5T (in the US)

Potential value in open data, \$ billion



¹Includes US values only.

Source: McKinsey Global Institute analysis

APIs are the fuel of **Digital Initiatives**

Unfortunately, most teams engaged in API/Open Data initiatives are **doing it wrong**.

Open Data Evolution Stairway

Disclaimer:
Not endorsed by Led Zeppelin.

Open Data Heaven

Step 5: Make Data Collaborative

Step 4: Make Data Linkable

Step 3: Make Data Usable (JTBD)

Step 2: Make Data Accessible

Step 1: Make Data Available



Step 1: Make Data Available

.CSV

.PDF

.TIFF

Timeliness and parse-ability are significant challenges. Data published infrequently and often in unstructured (PDF, scanned images) format.

Step 1: Often Characterized with Data Quality Issues

"Data **quality** is an issue. We see governments that have put regulatory provisions to release data, but nobody is using it because they are just **dumping raw data**".

– Stephen Davenport,
Global Lead, Open Government at The World Bank

Step 1: Causes "data janitor work"

"Data scientists, according to interviews and expert estimates, spend from 50 percent to 80 percent of their time mired in this more mundane labor of collecting and preparing unruly digital data, before it can be explored for useful nuggets".

– Steve Lohr, New York Times, 2014

Step 2: Make Data Accessible

Next step on the "stairway" of Open Data evolution is providing access to government data via what is known as **Open APIs**: web-services exposed over HTTP.

Open APIs improve data timeliness and provide more machine-readable output.

In 21st Century, Digital Government = Government APIs

“deliver information in new ways that fully utilize the power and potential of **mobile** and web-based technologies”

"making applicable Government information open and **machine-readable** by default"

– President Barack Obama, *May 23, 2012*

Source: https://www.whitehouse.gov/sites/default/files/uploads/2012digital_mem_rel.pdf

Step 3 Challenge: Not All "APIs" Are Equal

"Often governments don't quite get that, or: NGOs to be fair too. [They think]: *"if we just post [data] something will happen"* without thinking through **who the desired audience for [data] is.**"

– Alex Howard

Senior Editor, Technology and Society at The Huffington Post

Step 3: Make Data Usable

“Customers don't care about your **solution**. They care about **their problems**.”

– Dave McClure, 500 Startups



Step 3: Make Data Usable – Jobs To Be Done

Usable Open APIs are not just data-sets exposed over HTTP, but are carefully **designed** for **jobs** its **audiences** have to get done!

Step 4: Make Data Linkable

Assuming all required data is local is a fallacy!

"**Linked APIs** are APIs capable of operating on distributed data-sets, **crossing organizational data boundaries.**"

- <http://linkedapis.org>

Step 5: Open Data Is Collaborative Data

Challenge:

Read-only APIs **cannot** provide truly "open" data.

Step 5: Make Data Collaborative

"**Citizen collaboration** in policy and service delivery design will enhance the processes of government and improve the outcomes sought".

– Declaration of Open Government
by: Australian Gov't, Department of Finance

Step 5: Make Data Collaborative

"[Current definition of Open Data] is very one-way. [We need] opening up data in a real way: having **a write API** – giving **people** the ability to **contribute** their own information, their own opinions to put information in front of you that they think you should be looking at when you are involved in decision-making."

- Ian Schuler, CEO at Development Seed

Step 5: Make Data Collaborative

the WHITE HOUSE PRESIDENT BARACK OBAMA

★★★★★ THE WHITE HOUSE WASHINGTON ★★★★★

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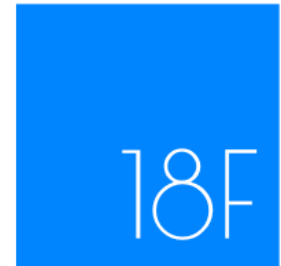
Introduction
Step By Step Guide

We the People API ←

- ❖ **Pothole Reports – NYC, Chicago, United Kingdom**
- ❖ **http://18f.github.io/API-All-the-X/pages/write_apis-notes**

Step 5: Make Data Collaborative

"There's significant progress with agencies offering read-only data APIs, but there **remains a need to apply the API model to the activities** that are possible on .gov websites. For instance, every place where an agency has an online equivalent of 'filling out a form' - there's an important question. **Can that only be done on the agency's website?** If so, that's a significant opportunity to **employ a write API.**"



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In 21st Century, **Open Government = Digital Government**

“I want us to ask ourselves every day, how are we using technology to make a real difference in people’s lives”

– President Barack Obama, 2010

Source: <https://www.whitehouse.gov/the-press-office/remarks-president-opening-session-forum-modernizing-government>

Thank you!



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