GROUP ASSIGNMENT

By: Group 4

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OPEN GOVERNMENT- DANIEL LATHROP& LAUREL RUMA, CHAPTER 1&2

MAIN DISCUSSION POINTS

- A Peace Corps for Programmers
- Competition Is Critical to Any Ecosystem
- Creating a Developer Corps
- Government As a Platform
- Lesson 1: Open Standards Spark Innovation and Growth
- Antitrust 2.0" as an Alternative
- Build Simple Systems and Let Them Evolve
- Design for Participation\
- Participation
- SMALL GOVERNMENT DEBATE
- Practical steps for government agencies:

A PEACE CORPS FOR PROGRAMMERS

The government heavily relies on contractors for Information Technology (IT), with few internal programmers. The government views IT as an additional function that can be outsourced. However, the role of IT is becoming increasingly crucial in government and every agency. Every civil servant depends on computers to carry out their work. The lack of internal programmers makes it challenging for employees to address day-to-day IT issues. The importance of IT is reflected in the reliance on online services like Google, Facebook, LinkedIn, and instant messaging for communication. The government needs to reconsider its dependence on IT contractors and strengthen internal capabilities to drive innovation and efficiency.

The government is often seen as slow, inefficient, and resistant to change, while private companies are considered better in terms of speed and efficiency. The government lags behind due to being hindered by two main issues in its contractual process:

- Firstly, the development process differs from modern web applications that continuously adapt to users, while the government is stuck with products known as "shelfware".
- ·Secondly, bureaucracy consumes a significant amount of time and cost just to initiate programming, causing easily overlooked problems to grow into larger and more expensive ones. This makes taxpayers uncomfortable and results in an inefficient government.

COMPETITION IS CRITICAL TO ANY ECOSYSTEM

One of the reasons the Web has better tools than the government is competition. The Web offers a wide array of choices to users, while the government often produces only one product. Web developers understand that innovation requires numerous experiments, whereas the government needs to produce more software.

In some government projects, such as Apps for Democracy and the U.S. Intelligence Community, there have been positive changes. They allow independent developers to create necessary tools and contribute to the government. However, there are still some challenges to be addressed, such as how to maintain software created by independent developers and how to handle feedback from government users, which may differ from the general public.

CREATING A DEVELOPER CORPS

In the current era of the internet, intelligence technicians need to be revitalized. The government needs to recruit web developers who can create innovative web applications, facilitate data access, and collaborate with government employees and citizens. Unfortunately, many young web developers do not align with the distinct government culture, prefer flexible work arrangements, and have an interest in venture capital. They need to be encouraged to join the government without having to sacrifice their current lifestyle.

GOVERNMENT AS A PLATFORM

TIM O'REILLY

During the past 15 years, the World Wide Web has created remarkable new methods for harnessing the creativity of people in groups that are reshaping our economy. This methods often referred to as Web 2.0. In a nutshell: the secret to the success of bellwethers like Google, Amazon, eBay. Craigslist, Wikipedia, Facebook, and Twitter is that each of these sites, has learned in its own way and harness the power of its users. Similarly, governments are taking the opportunities Web 2.0 technologies provide not just to help them get elected, but to help them do a better job. By analogy, many are calling this movement Government 2.0. Much like its predecessor, Web 2.0, "Government 2.0" is a chameleon, a white rabbit term. That seems to be used by people to mean whatever they want it to mean. Some people think of it as government transparency, government others think of it as the use of social media by government agencies.

Government 2.0 is not a new kind of government; it is government stripped down to its core, rediscovered and reimagined as if for the first time. Government 2.0 is the use of technology for solve collective problems at a city, state, national, and international level. With this internet technology, it is hoped that rebuild the kind of participatory Government (envisioned by our nation's founders, in which, as Thomas Jefferson wrote in a Letter to Joseph Cabell, "every man...feels that he is a participator in the government of affairs not merely at an election one day in the year, but every day.")

Information provided by the public is crucial for the economy and the state, government has a responsibility to treat that information as a national asset. Information and services from the government should also be provided to the citizens, and the citizens has the power to trigger innovations that will lead to better approaches to governance. In this model, government is a convener and an enabler. This chapter focuses primarily on the application of platform thinking to government technology projects. The idea of government as a platform app to every aspect of the government's role in society.

For example, the Federal-Aid Highway of 1956, which committed the United States to building an interstate highway system, triumph of platform thinking, a key investment in facilities that had a huge economic and a multiplier effect. Though government builds the network of roads that tie our cities together it does not operate the factories, farms, and businesses that use that network: that oppotunity is afforded to “we the people.” Government does set policies for the use of those roads, regulating interstate commerce, levying gasoline taxes and fees on heavy vehicles that roads, setting and policing speed limits, specifying criteria for the safety of bridges and even vehicles that travel on the roads, and performing many other responsibilities appropriate to a “platform provider.”

While it has become common to ridicule the 1990s description of the Internet as the "information superhighway," the analogy is actually quite apt. Like the Internet, the road system is a "network of networks," in which national, state, local, and private roads all interconnect, for the most part without restrictive fees. We have the same rules of the road everywhere in the country, yet anyone, down to a local landowner adding a driveway to unimproved lot, can connect to the nation's system of roads. The launch of weather, communications, and positioning satellites is a similar exercise on platform strategy. When using GPS, we use apps built on a government platform collaboratively funded by the private sector. When checking the weather on TV or the Internet, we use the National Weather Service as a platform. The government as a platform provider creates capabilities that enrich further private sector investment possibilities. However, There are other areas where the appropriate role of the platform provider and the marketplace of application providers is less clear. Health care is a contentious example.

Should the government be providing health care or leaving it to the private sector? The answer is in to outcomes. If the private sector is doing a good job of providing necessary services that learn the overall increase in the vitality of the country, government should stay out. But just as interstate highway system increased the vitality of our transportation infrastructure, it is certainly possible that greater government involvement in health care could do the same. If the lesson is correctly learned, it should do so not by competing with the private sector deliver health services, but by investing in infrastructure (and "rules of the road") that will lead to a more robust private sector ecosystem. At the same time, platforms always require choices, and those choices must be periodically revisited. Platforms lose their power when they fail to adapt.

If government is a platform, how can we use technology to make it into a better platform? What lessons can government take from the success of computer platforms, as it tries to harness the power of technology to remake government?

LESSON 1: OPEN STANDARDS SPARK INNOVATION AND GROWTH

The extraordinary power open standards to foster innovation. When the barriers to entry to a market are low. Goverment are free to invent the future. When barriers are high, innovation moves elsewhere. The second is that vibrant platforms become less generative over time, usually because the platform vendor has begun to compete with its developer ecosystem. Some readers may take the lesson to be that government plays an important role in antitrust enforcement, keeping a level playing field. Facing the crises of the day, from banking to health care, we see a story in which entrenched players have grown large and have used their resulting.

ANTITRUST 2.0" AS AN ALTERNATIVE

The concept of "Antitrust 2.0" proposes a new approach to business regulation, emphasizing the promotion of openness and interoperability rather than merely restricting the size or power of large companies. It is evident that significant competition for large corporations like Microsoft does not come from direct competitors in software sales but from new ad-based businesses that emerged in the early days of the open World Wide Web.

The government should play a role in fostering innovation rather than just pursuing antitrust enforcement after issues arise. Open standards become a crucial tool in driving this innovation, as seen in the example of cloud computing where supporting open standards can prevent the dominance of a single player.

There are concrete examples of the government's use of open standards, such as in the General Service Administration's (GSA) request for Infrastructure as a Service (IaaS) and the military's guidelines on the use of open-source software. Initiatives like Data.gov provide access to government data through open application programming interfaces (APIs).

The government needs to consider the impact of its decisions on the market, whether they will increase or decrease barriers to innovation and competition. Furthermore, a government transformation (Government 2.0) is necessary, one that is more adaptive and enabling, with a focus on ending ineffective programs and leveraging the government's platform to support citizens and the economy.

BUILD SIMPLE SYSTEMS AND LET THEM EVOLVE

The importance of starting with a simple, functional system is also illustrated by the development of the internet. Simple protocols on the internet have evolved into more complex ones, while more complicated models like OSI have been marginalized. In the context of governance, it is essential to understand that designing a simple system is a significant challenge in creating a more effective Government 2.0. The government must adopt the philosophy of simplicity in its work and create a foundation that can be used and developed by others. Data.gov is an example of how the government can embrace this approach by providing access to government data through application programming interfaces (APIs), allowing independent developers to create applications that leverage that data.

Amazon also provides an example of a revolution in cloud computing through a simple and open service-oriented architecture. This teaches us how a simple system can provide greater possibilities for innovation. The importance of separating data from interactions and providing greater access to private entities in creating applications that utilize government data is also emphasized. This aligns with the developments of Web 2.0 and Gov 2.0, where data becomes the core of internet applications.

All of this demonstrates that designing simple systems and enabling further development is a key step in creating a more adaptive system that benefits citizens and the economy as a whole.

DESIGN FOR PARTICIPATION

Design for participation is a concept crucial in system development. Participatory systems often need to be simple to function effectively. For instance, open-source software projects like Linux and open systems like the internet succeed not because there is a central entity controlling everything but because there are clear rules that enable independent developers to collaborate.

This approach illustrates that robust systems are built from the cooperation of different components, akin to constructing with building blocks that can be used by everyone. It allows various distinct projects to come together and create something remarkable. Examples like Linux showcase how diverse projects can contribute to creating something extraordinary.

In the context of the World Wide Web, important design principles are simplicity, default openness, and easy participation. This means that anyone can create links to other web pages without permission, and all web documents are open and accessible to anyone. This forms the basis of the generativity of the web, resulting in a rich and diverse ecosystem of applications.

This concept can also be applied in various policy domains, such as taxation, healthcare, and immigration. The "default openness" approach can help people make better decisions, and this is a crucial principle in designing effective policies.

In the context of government as a platform, the main question is how to design systems that enable broad participation from the public. This can involve creating clear rules, separating data from interactions, and allowing various parties to contribute to and develop the system. With this approach, we can create a powerful and adaptive platform that benefits everyone.

The text discusses several key points related to government, technology, and open data. Here is a summary of the important points:

1. Policy Defaults and Innovation: The text mentions that policy defaults can impact innovation, highlighting the importance of government policies in shaping technological progress.
2. Generative Outcome: It emphasizes the need to design government programs and infrastructure that empower citizens ("we the people") to actively participate and contribute to government functions.
3. Robustness Principle for Government: Like the TCP robustness principle in technology, President Obama's call for transparent, participatory, and collaborative government serves as a guiding philosophy for designing government platforms.
4. Transparency: Open data, while promoting transparency in government operations, also enables innovation as developers can create applications that utilize government data in creative ways.
5. Participation: Participation in government extends beyond citizen input; it involves genuine engagement and collaboration with citizens in policymaking and program design.

6. Open Government APIs: Open government APIs allow citizens and developers to interact with government data, creating new interfaces and applications that improve access to government services.
7. Citizen Self-Service: Citizens can take an active role in addressing local issues through self-organized initiatives, reporting problems, and contributing to community improvement.
8. Crowdsourcing: Crowdsourcing is highlighted as a powerful approach to gathering input and data from the public, with the potential to reveal valuable insights and solutions.
9. Innovation Beyond Creators: The text discusses how innovation often comes from individuals or groups who utilize platforms in unexpected ways, emphasizing the importance of openness to such innovation.
10. Open Data as a Driver: Open data is presented as a key driver of innovation, enabling the private sector to build applications and services that government may not have considered.
11. Business Models: The text touches on the changing business models in the context of open data and how traditional profit opportunities may shift to adjacent stages in the value chain.

The text underscores the pivotal role of open data, transparency, and citizen engagement in shaping modern government practices and fostering innovation. It emphasizes the need for government policies that empower citizens to actively participate and collaborate in policymaking and program design. The concept of open government APIs is presented as a means to facilitate public access to government data and services, encouraging the development of citizen-facing applications. The text also highlights the power of crowdsourcing in gathering diverse input and generating valuable data. Ultimately, it advocates for a shift towards more open and inclusive government platforms, where innovation can flourish through collaboration with the private sector and active citizen involvement.

Overall, the text advocates for open, transparent, and participatory government as a means to encourage innovation and collaboration between the government and the private sector. It highlights the importance of open data and the potential for technology to transform the relationship between citizens and their government.

PARTICIPATION

- User participation and co-creation of value can be leveraged through technology platforms that explicitly showcase the creations of their users, such as Wikipedia, YouTube, Twitter, Facebook and blogs.
- Breakthroughs in Web 2.0 have often come from exploring the possibilities of much broader collaborations, such as the open-source technology platform, the World Wide Web, and first-generation web giants like Yahoo!, eBay, Craiglist, and Amazon.com.

- Google's search engine dominance began with two brilliant insights into user participation, namely the PageRank algorithm and the measurement and prediction of user click-through rates on ads.
- Google continues to mine user participation in many aspects of its core business as well as in new businesses, including speech recognition, location-based services, automatic translation, and more.

- Google is a master at extracting value from implicit participation. It utilizes the data that its users provide simply by living their lives on the Internet to provide them with results that quite literally could not exist without them.
- Analog Gov 2.0 can be a "sacred cow machine" for transparency and can be a dynamic new pricing system for Medicare.

- The linkage of healthcare cost and outcome data in real-time will lead to a major shift in practice as innovative \ healthcare providers use it to improve their effectiveness as well as lower their costs.

1.Failure is not an option

In a memorable moment during the Apollo 13 lunar mission, when a mechanical failure required the mission to be aborted and the astronauts were saved using only the materials on board, mission controller Gene Kranz famously said, "Failure is not an option." Too often, however, government programs are designed as if there is only one right answer, and assuming those specifications developed by the project team are by definition correct. In general, for most projects, failure is an option. In fact, technology companies are embracing failure as the right answer, and assuming those specifications are developed by project teams by definition are correct. In reality, for most projects, failure is an option. In fact, tech companies embrace experimentation, and rapid iteration.

2. Experimentation and fast iteration

Technology companies embrace experimentation, and rapid iteration. In describing his work for a working electric light bulb, Thomas Edison said, "I didn't fail 10,000 times. I succeeded 10,000 times in figuring out something that didn't work." Companies routinely run A/B tests of new features on a subset of their feature users. They add and subtract features in real time in a process of constant improvement that I sometimes call "perpetual beta." More recently, thinkers such as Steve Blank and Eric Ries have described an idea that is referred to as "the lean startup", where he describes exploring a market through a series of "minimal viable products", each of which tells you more about what the market actually is.

3. Open platform

Government programs should be designed from the start not as a fixed set of specifications, but as an open platform that allows expansion and revision by the market. Platform thinking is an antidote to the exhaustive specifications that currently dominate government approaches not only to IT but to all types of programs. A cultural change is also required. Empowering employees to "fail forward quickly" accepts and recognizes that even if the experiment fails, you will still learn something. Once the cost of such experimentation is reduced, you can quickly scrap the product or feature that no one uses and accept that it wasn't a necessary thing to build after all. It's critical for best practices-and even working codes-to be shared among federal government agencies, between states, and between municipalities. As Justice Louis Brandeis wrote in 1932, "It is one of the happy incidents of the federal system that one intrepid state may, if its citizens choose, serve as a laboratory; and try novd social and economic experiments without risk to the rest of the country."

4. Platform thinking transforms big government

Platform thinking provides a real alternative to the endless argument between liberals and conservatives that has so dominated US political discourse in recent decades. The idea that we have to choose between government providing services to citizens and leaving everything to the private sector is a false dichotomy.

Being a platform provider means the government overlooks important things. Platform providers build critical infrastructure, create core applications that demonstrate the power of the platform and inspire outside developers to push the platform further, and implement "rules of the road" that ensure that applications work well together.

SMALL GOVERNMENT DEBATE

Microsoft and Apple introduce new products by showing off the ease of use and power of their apps. Great platform providers do things that are ahead of the curve and take time for the market to catch up. Apps.DC.gov provides a better Gov 2.0 platform model than the federal equivalent of Data.gov. A federal Government 2.0 initiative needs to do some deep thinking about what federal data resources and APIs will make the biggest difference for citizens, and strategically invest in apps that will demonstrate what can be done. The true measure of Gov 2.0 is whether it makes incremental changes to existing systems or whether it is a revolution.

PRACTICAL STEPS FOR GOVERNMENT AGENCIES:

1.Issue your own open government directive.
2.Create "simple, reliable and publicly accessible infrastructure that 'shows' the underlying data" from your city, county, state or agency.
3.Build your own websites and apps using the same open systems to access the underlying data as they make available to the wider community.
4.Share those open APIs with the public, using Data.gov for federal APIs and the creation of local equivalents.
5.Share your work with other cities, counties, states or agencies.
6. Support existing open standards and use open source software whenever possible.

7. Create a list of software applications that can be reused by your government employees.
8. Create an "app store" that features apps created by the private sector as well as those created by your own government units.
9. Create permissive social media guidelines that allow government employees to engage in.
10. Sponsor meetups, code camps, and other activity sessions to really get citizens working.

THANK YOU

ANY QUESTION?