In the examples we looked at, after the first change in response to our testing, **rdf-schema#label** was actually being output in exactly the same as **rdf-schema/label**. But I believe the point is that the '/' will be changed to '#' when the data is a literal (string), which is now the case since the update has been fixed across the board. Eventually, all these changes will be pushed to stage.sinopia.io and sinopia.io (which is the production server).

This small feature change thus moves Sinopia into the direction that Library of Congress is moving, and yet it allows for some signification that there is distinction between data stored from lookup and data stored as a literal (string). I think we are moving into some fine-tuning of work in Sinopia now that will make the target vector more solid for wider interoperability and connections to be made as development continues. It is a useful change, methinks. Looking forward to the future of more RDF-based metadata production improvements.

THE INTERNET

Conflict in Tech: Internet company revenue models versus privacy expectations of regular people using the Internet

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Introduction

This column highlights the conflict between current business models for large internet companies versus the expectations and wants of regular people interacting with those companies on a daily basis. Recently, Apple changed privacy practices in its App Store and Safari browser. Changes allow users to choose more privacy and less tracking than was previously available. A prominent revenue stream for large technology companies relies on tracking and gathering personal information about people, then selling that information to advertisers. Specifically, this may be the primary source of revenue for both Google and Facebook. Meanwhile, Apple's changes both threaten the business model that technology has fallen into and also provide a window into the desires of regular people. Since allowing users the choice to give or deny permission for newly installed App Store apps to communicate with other apps and track user activity outside of the app on the device, about 94% of installs have chosen to deny this permission. This shows how much conflict there is between wants for people using the internet and business models of major internet companies.

Targeted Advertising as Revenue Model for Internet Companies

A business model which funds some large technology companies is to collect information about people using the internet, then use that profile information on individual users to sell to advertisers the ability to do very segmented advertisements. The way that works is: Company builds a detailed profile of each individual user. Then advertisements can be shown to very targeted demographic categories. Essentially, what is being sold is sort of showing the advertisement, but, more specifically, what is sold is the ability to show the advertisement to a specific targeted demographic profile. The money is in the profiling, which comes from the amount of personal data that the company can gather about each individual person using the internet. In 2019, Google's advertising revenue was about 83% of the company's total revenue.[1] And, in 2019, Facebook's advertising revenue was about 98% of the company's total revenue.[2] Meanwhile, these two companies have access to a huge amount of information on Internet use habits of individuals. In 2019, more than 70% of websites had a Google tracker, and more than 20% of websites had a Facebook tracker (English language websites used by residents of Australia).[3] That is to say, each company is collecting a great deal of information about browsing habits on websites in general, not limited to browsing habits within websites that each company operates. Collecting information about each person using the Internet is a necessary part of a business which makes most of its money from being able to target advertisements to very precise demographic categories.

Apple's Recent Browser and Smart Phone Changes: Allowing More Privacy Controls for People Going Online

Recent developments around Apple and privacy settings show the extent to which the way Internet companies make money is in conflict with what regular people want.

Safari is Apple's internet browser. It ships with all Macintosh computers and mobile devices. Therefore, Safari has significant market share in the U.S. In 2018, Apple rolled out changes to the Safari browser aimed at preventing tracking a person across the web as they visit different sites. Specifically, this was to prevent tracking someone with something like the Facebook "Like" button.[4] The "Like" button is a widget that someone running a website can copy and paste onto their website so that someone visiting their website can click right in and "like" them on Facebook. The button sends some information back when the website loads, so it tracks someone loading a webpage with a "Like" button regardless of whether the person clicks it or not. Google similarly can track individuals browsing across the web with embedded Google Analytics, which works when website owners copy and paste a snippet of code onto their webpages in order to get statistics about page loads. Any site with Google Analytics on it sends some information back when loaded. The 2018 changes were to limit what information shares out automatically when a person loads a website and were specifically intended to limit sharing information to Facebook through "Like" buttons embedded on other websites. Changes limited how much information about the person's browser was sent out automatically in order to make information less specific and prevent it being traced back to a specific browser.

The Apple App Store is the only way to download and install apps for the iPhone. Currently, the iPhone has a United States market share percent in the high 30s and a 15% market share in non U.S. markets.[5] It's a pretty significant portion of the smart phones in use today. Trends there might become trends across smart phones generally, and user reactions on the iPhone are significant in understanding public sentiment.

In June of 2020, Apple rolled out the a "Privacy Nutrition Label." In short, each app on Apple's iPhone App Store got a nutrition label which users saw when browsing for apps. The nutrition label shows three categories (Data Used to Track You, Data Linked to You, and Data Not Linked to You) and for each category shows a quick bullet point list of items such as "Location," "Financial Info," "Browsing History," etc.[6] The idea is that someone could quickly see what information any given app was collecting from the smart phone before installing the app. Information was self reported by each app's maker and wasn't verified by Apple. In practice, testing has shown the information in the nutrition label to be inaccurate.[7] Nevertheless, the idea of giving smart phone users more control over what information apps collect about them went mainstream when the nutrition label was introduced.

More recently, Apple has gone farther in allowing users to control what information apps collect about them. In April 2021, Apple introduced App Tracking Transparency. This involves a pop up showing to the phone user on each app when the app requests a digital advertising identifier from the phone. Essentially, this identifier is used to share app use information with third parties. Without that identifier, the companies making the apps can't consolidate information about how the person uses the phone across apps. Without the identifier, each app maker has only use information about the apps it makes but not much information about other activity on the phone. When any app requests the identifier, Apple pops up a message that the app "would like permission to track you across apps and websites owned by other companies" and gives the person the chance to allow or not allow that. Prior to rollout, Facebook opposed the change and began advertising about how the change will hurt small business owners because it's important for small business owners to be able to target advertisements.[8] Given that more than 98% of Facebook's revenue comes from selling targeting for advertisements, without the ability to collect lots of information on individual people, Facebook essentially doesn't have a sustainable revenue model. Facebook opposing any changes that block the ability to collect information on browsing habits is a given.

People's Privacy Choices are in Conflict with a Dominant Internet Company Revenue Model

Since App Tracking Transparency has gone live, about 96% of people have opted out of tracking.[9] This has led to Facebook being vocally against the App Tracking Transparency pop up and to headlines and buzz about the "Apple Facebook war." Disagreement between two large tech companies over an app store feature is one way to view it.

A bigger conflict is the dichotomy between one major revenue model for internet companies versus the preferences of regular people using services from that company. For Google and Facebook, the bulk of revenue comes from an advertising system that relies on collecting as much personal information as possible about individuals. Meanwhile, 96% of people, when given the choice, opted out of the tracking behavior which powers that business model.

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