TileMill (Tilemapping)

PROJECT	GRANTEE	INNOVATION	GRANT
TileMill	Development Seed	A suite of open-source tools that local media can use to make custom, embeddable, hyper-local maps	\$76,960

TileMill is a project of Development Seed, a data visualization and mapping firm based in Washington, DC. TileMill significantly lowers the barrier to entry for creating highly customized maps, with the aim of allowing journalists and bloggers to tell richer stories and provide unique analysis on local issues through hyperlocal, data-filled maps.

THE INNOVATION

TileMill is a free, open-source mapping tool for creating highly customized maps, viewable on any web browser and on various mobile devices. Although other basic mapping tools such as Google Maps, OpenLayers, and Polymaps have already made it easier to load a map into a website and plot certain points on it, TileMill offers the ability to change the appearance of base maps (both in design and the data they show) and to easily customize data points. TileMill requires less technical experience than traditional GIS mapping and turns mapmaking into a task that those who are comfortable with common web design languages (HTML and CSS) can quickly grasp. Users customize their maps with the platform's web-based interface and CSS style sheets. TileMill can import maps and layer data from several popular file formats. Maps made in TileMill can be exported and edited through popular software such as Adobe Illustrator.

IMPLEMENTATION

Rather than start from scratch, Development Seed built TileMill from a suite of open source libraries including Mapnik, node.js, backbone.js, express, and CodeMirror. Development Seed received funding through the Knight News Challenge to develop TileMill into TileMill 2.0, with a new focus on ease of use. Initial contract negotiations with Knight and discussions on the type of open-source license that would be used delayed the project's launch by a month. TileMill 2.0 was launched on February 16, 2011 with extensive built-in help text and thorough documentation available at

http://mapbox.com/tilemill/. Development Seed announced this launch through its blog and other social media channels such as Twitter and Delicious. Within the first day of TileMill 2.0's launch, more than 10,000 people read the announcement on Development Seed's blog and 1,750 visited TileMill's website.

Throughout TileMill's development process, Development Seed regularly asked both the developer community and regular users for their feedback on the tool. Development Seed has released eight updates of the tool since the release of TileMill 2.0, adding a number of key features including a one-click installer and a Microsoft Windows compatible version of the software. Version 0.10.0, TileMill's most recent version, was released in late September 2012. TileMill 0.10.0 offers even more functions for compositing layers and allows for Photoshop-like clipping, masking, blurring, and highlighting.

At the start of the project, Development Seed planned to focus its marketing efforts on targeted outreach to journalists and bloggers in the Washington, DC area. TileMill would work closely with the *Washington Examiner* as a beta

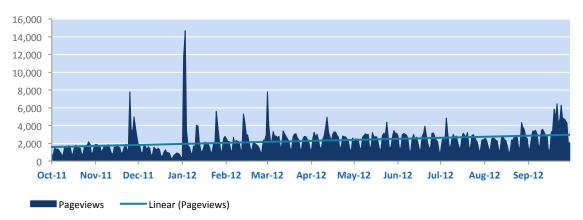
¹ Backbone.js is also a component of <u>DocumentCloud</u>, a 2009 Knight News Challenge winner.

partner, to test the software and provide training on how to use the tool to create custom maps for the Examiner's local stories. TileMill's point of contact left the *Examiner* just before TileMill 2.0 was launched, and the project was left to find another beta partner. Despite this initial setback, the tool received interest from a number of mainstream news organizations outside the DC area. TileMill's team spent more time training these groups in an effort to gain a number of strong samples that could be used to show TileMill's work and help spread usage to more local bloggers and news organizations. Development Seed also continued promoting TileMill through its blog, social media channels, presentations and trainings at local meet ups and conferences, and through its involvement in the developer community.

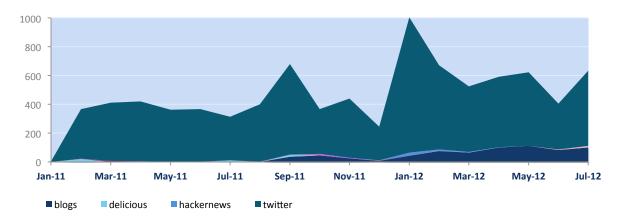
REACH AND OUTCOMES

Early signs of impact such as TileMill's number of downloads, high-end clients, and the buzz surrounding the project suggest that TileMill may be well on the way to becoming an essential newsroom tool. It experienced a significant and steady growth of visitors who came to its website for information on the project and/or who downloaded the application to create and modify their own maps. As of early October 2012, TileMill had been downloaded nearly 65,900 times. Among the organizations to download the application are: well-known news organizations such as the Chicago Tribune, the Boston Globe, NPR, USA Today, the New York Times, and the Guardian; universities including Cornell; international agencies like Amnesty International; and

Pageviews



Social Media Mentions



government agencies including the White House and the Department of Energy. While TileMill originally planned to target its outreach efforts to the Washington, DC area, the evidence suggests that it has gained considerable awareness and spread to a much broader audience. From January 2011 to October 2012, TileMill was mentioned a total of 10,600 times over social media channels, with 38 percent of those mentions coming from outside the United States. The majority (85 percent) of these mentions were over Twitter. Peaks in TileMill's mentions in January 2011, September 2011, and January 2012 coincide with release of new versions of the software.

TileMill achieved its broader goal of helping journalists and bloggers tell richer, more complex stories through hyper-local, data-filled maps. MapBox—which began as Development Seed's fee-based platform for hosting TileMill maps and now exists as a fully separate company that operates TileMill—features a wealth of visually stunning maps that succeed in this goal through the use of the tool.² TileMill has received a largely positive response from many users, including excitement from Brian Boyer, one of the Chicago Tribune's main developers of news applications. In addition to the tool's actual use, project team members are frequently asked to present and give trainings on TileMill at conferences and events around the country.

The project has also attracted significant attention in the area of open-source code and cultivated a strong developer community. By late July 2012 TileMill's code had been downloaded more than 56,000 times, forked 114 times, and attracted nearly 1,000 individuals who signed up to be notified of code changes. TileMill was featured in *Linux Magazine* as a project to watch, and Development Seed was asked to present on TileMill at a number of open source

conferences, including WhereCampPDX, WhereCampDC, POSS4G, and State of the Map.

² MapBox's gallery of web maps built using TileMill is available at http://mapbox.com/tilemill/gallery/.