

## Social Explorer

**URL:** <https://www.socialexplorer.com/>

**Publisher:** Social Explorer, <https://www.socialexplorer.com/>

**Primary Subject:** Multidisciplinary (or interdisciplinary)

**Secondary Subject(s):** Business & Economics, Government Information, Political Science & Law, Sociology, Education, Anthropology, Psychology

**Review Type:** Data sets, Primary source digital content, Reports, Software, Statistical database

**Access:** Subscription

**Composite Score:** 4.25

**Reviewed by:** Michael Hughes, Trinity University

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## Abstract

Social Explorer is a web-based demographic research tool that turns raw data into custom maps, charts, and other visualizations. Though most of its underlying data are published free of charge by the agencies and organizations from which they originate, Social Explorer adds interpretative value to public data by translating them into visual representations that aid comprehension. This review evaluates Explorer's map- and report-making features—their strengths, limitations, and possible uses in educational contexts—and finds the tool well suited for laypeople and experts alike, any of whom can use Social Explorer to support their arguments with trustworthy visual evidence.

## Overview

In Jim Hogg County, Texas, nearly 17% of all workers spend 90 minutes or more on their daily commute. In Salt Lake County, Utah, where I grew up, 203,951 people have earned a bachelor's degree, whereas 11% of the population never graduated from high school. In Michigan, 4,666 people ride a motorcycle to work,

and Vermont is home to just 214 people of Hawaiian or Pacific Island descent.

These are but a handful of the statistics one can summon, plot, and communicate via Social Explorer.

Social Explorer takes complex data, figures from which the mind reels, and turns them into comprehensible images. It's one thing to learn that 43 million Americans live in poverty (Procter 2016). It's another to see those numbers plotted as gradations of color, swaths of states darkened by the bruise of inequality (see Figure 1). Explorer provides a way to communicate information that is otherwise hard to understand, and it does so simply and efficiently. The difficulty lies only in selecting from the many data elements available for analysis.

Most of these elements come from the public surveys and reports of government agencies, including the Census Bureau, the FBI, and the Centers for Disease Control. Would-be subscribers may wonder why they should pay for data they can freely obtain and which, as taxpayers, they've already helped fund. I too am skeptical of vendors that package public information and charge for access

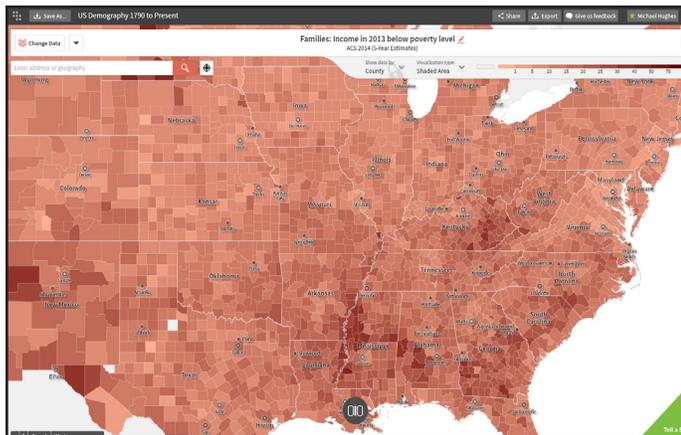


Figure 1: Map Showing Poverty U.S. Levels via Social Explorer

(Maret 2016), but I find Explorer a harmonious marriage of public obligation and private ingenuity. For one thing, nothing prevents a person from gleaning information directly from the Census Bureau, which provides some visualization through its Data Mapper program. But the Mapper’s outmoded Flash interface pales in comparison with Social Explorer’s web-rendering engine, which creates maps quickly and permits users to smoothly zoom between different geographies. Explorer’s software engineers add value to public data by making them easier to process and disseminate, extending the data to new users and uses. And it doesn’t hurt that the Bureau itself seems pleased with Social Explorer, having partnered with the company to create Census Explorer, a series of (now decommissioned) demographic maps. This de facto endorsement allays any concern that Social Explorer unjustly preys on the public purse.

Though most of its data are of U.S. origin, Social Explorer includes some international data such as the World Bank’s development indicators, the 2011

Canadian and United Kingdom censuses, and the Eurostat survey, which provides a demographic picture of the European labor force.

## User Interface

By default, Social Explorer loads data on population density in the United States, painting the map in shades of “Social Explorer orange” (see Figure 2). From this screen users can access each of the features described in the following sections.

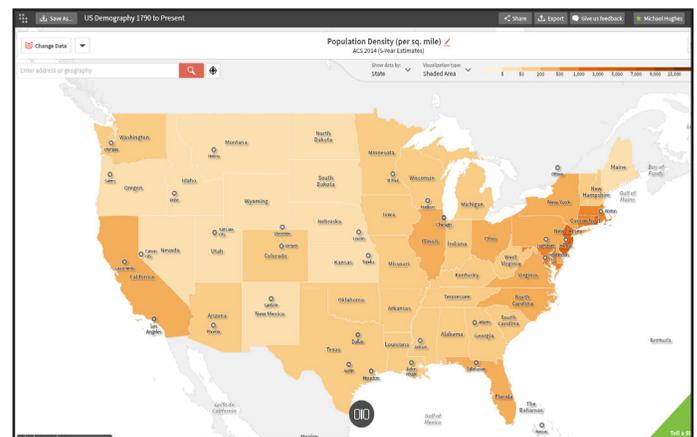


Figure 2: Social Explorer Population Density Map

### CHANGE DATA AND ADDRESS SEARCH

By default, Social Explorer loads all categories of the 2017 American Community Survey, but users can select different datasets by clicking the Change Data button (see Figure 3). From this menu, users can browse by demographic category, survey type, or year. If I select 2018 from the scrolling timeline, for example, I can plot U.S. elections data, the only kind available that year. If I scroll in the opposite direction, all the way back to 1790, I can choose from one

### At A Glance

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<b>Audience level</b>	Secondary, General public, Undergraduate, Graduate/Faculty/Researcher
<b>Access</b>	Subscription
<b>Composite Score</b>	4.25
<b>Key Words:</b>	data visualization, information visualization, information design, demography, digital maps, census, statistical data

of seven categories from that year’s census, including slave status. Users can also search within surveys to locate tables by keyword.

of values” are randomly scattered across a geographic area (Social Explorer 2019). Some visualization types explain data better than others. The state-level view of households earning more than \$100,000, for example, is fairly undifferentiated when viewed as a shaded area. Switch to bubbles, however, and it’s easy to see the vast difference in household numbers from, say, Texas’ 9 million to New Mexico’s 764,000.

**CUSTOMIZATION AND BASE MAPS**

Many of Explorer’s customization options are hidden behind a hamburger button (displayed as ≡) in the



Figure 3: Social Explorer Change Data Options

Below the Change Data button, a search field allows users to search the map by address or geography. Explorer automatically generates suggestions as the user types, zooming from a country-level view down to the state of Texas, down even to 2731 S. W.W. White Road, the location of 2M Smokehouse and the best barbecue in San Antonio. Click-and-drag support makes it easy to move around a map, and users can adjust the zoom level via mouse wheel.

**VISUALIZATION OPTIONS**

A white overlay at the top of the map screen shows the currently selected variable, its parent survey, and three different ways to visualize data: as shaded areas, in which color tones correspond to data values; as bubbles, which display as circles of varying sizes; and dot density, where dots representing “a discrete amount

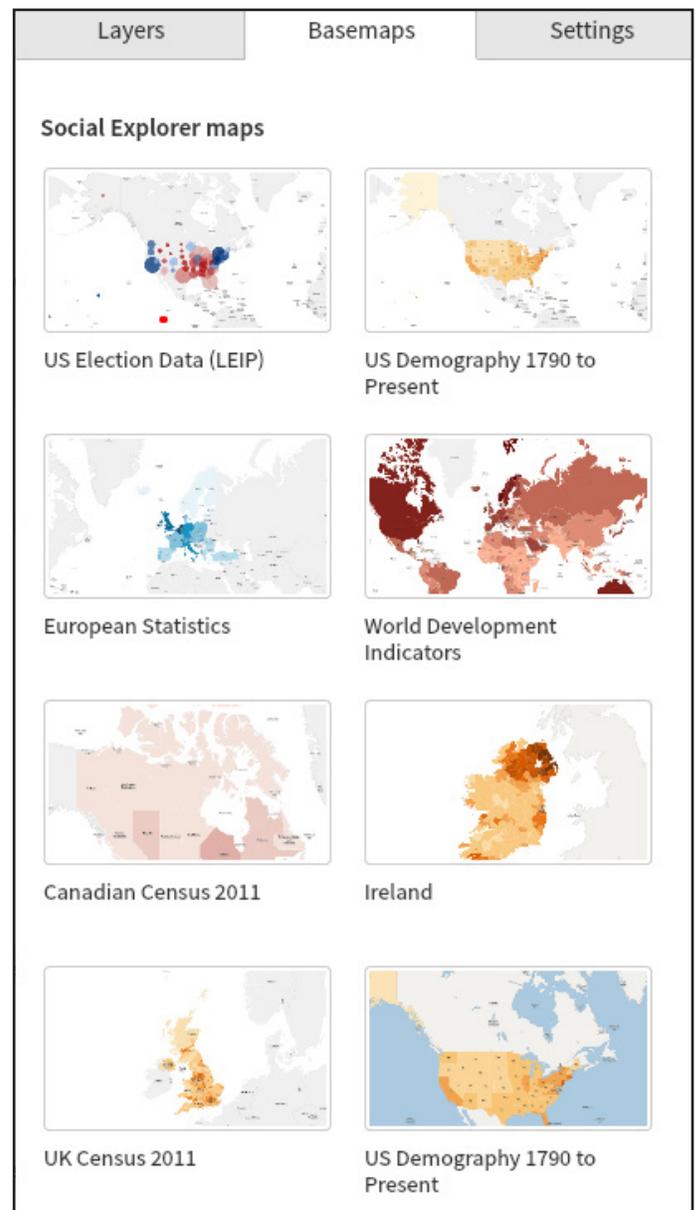


Figure 4: Social Explorer Base Maps

upper right corner of the screen. Here the user can toggle between satellite and simplified maps or annotate them by adding lines, labels, and other symbols to explain results and focus attention. Users can also choose from various boundaries and labels, such as congressional districts and state capitals. Colors, too, can be customized. Social Explorer provides 24 preset palettes in sequential and diverging configurations, not to mention the 16 million colors in the custom palette picker. Follow color theory or turn the nation into a hellscape of clashing Crayolas, the choice is yours.

Base maps are also located within the customization menu. Each base map is associated with a particular data source, making it easy to switch between or compare data from different surveys (see Figure 4).

**REPORTS**

Social Explorer is chiefly a tool for making data visual, but its reports reverse this dynamic. From the customization menu users can create reports by choosing from Explorer’s surveys, from major topics within those surveys, or from one or more geographic areas (see Figure 5). The resulting reports load in browser and can be shared via link or saved in Excel or CSV formats, ensuring compatibility with statistical software (e.g., SAS, SPSS).

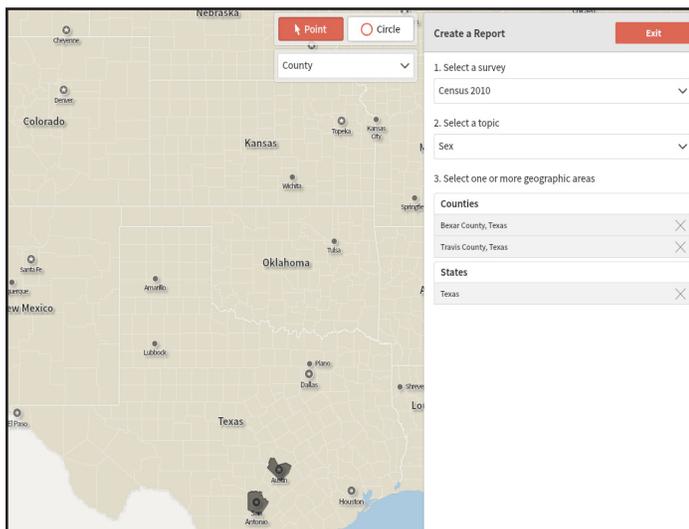


Figure 5: Social Explorer Reports Example

This in-map menu is a simplified version of Explorer’s robust report builder, which can be accessed from the home page. In addition to table-by-table customization, the builder is compatible with Federal Information Processing Standards, or FIPS codes, which uniquely identify counties and county equivalents. If you know the FIPS codes that apply to your query, Explorer’s batch loader saves you the hassle of locating and adding them one by one.

**DATA DICTIONARY**

The data dictionary shows the provenance of each variable down to the table in which it originally appeared. It also provides technical documentation describing each survey’s purpose, contents, and method of data collection. Social Explorer is also remarkably transparent about the way its software computes each variable, giving in full the formula by which data are displayed. A complete citation, including explanatory snippets from relevant documentation, rounds out the data’s credibility (see Figure 6).

**Data Dictionary: ACS 2014 (5-Year Estimates)**

YOU ARE HERE: [choose a survey](#) > [survey](#) > [data set](#) > [table](#) > variable details

Survey: ACS 2014 (5-Year Estimates)  
 Data Source: Social Explorer, U.S. Census Bureau

Data set: Social Explorer Tables: ACS 2014 (5-Year Estimates) (SE)  
 Table: T2. Population Density (per sq. mile) [3]  
 Universe: Total Population

**Variable Details**

T2. Population Density (per sq. mile)  
 Universe: Total Population

T002\_002 Population Density (per sq. mile)

Percent base: None - percentages not computed

Aggregation method: Division of Sums; variables: Sum(B01001001) / Sum(T003\_002)

Formula used to compute this variable:

```
if (Geo:AREALAND.IsNull || ACS14_Syr:B01001001.IsNull || Convert.ToSingle(Geo:AREALAND) == 0) Return_Value.IsNull = true; else Return_Value = ACS14_Syr:B01001001 / (Convert.ToSingle(Geo:AREALAND) / 2589988);
```

Variables used in the formula:

Geo:AREALAND	Area (Land)
ACS14_Syr:B01001001	Total Population

Figure 6: Social Explorer Data Dictionary Example

**SHARE AND EXPORT OPTIONS**

Explorer’s top menu provides the usual complement of options for sharing your work, including stable URLs, social media links, and code for embedding maps in HTML environments. Users can also export their maps as PowerPoint slides or as PNG files in various sizes and resolutions.

**STORYTELLING TOOLS**

It’s fun to plot variables for the sake of curiosity, but most Explorer users have questions to answer or arguments to make. They need to compare and contrast data or put them in context. In other words, they need to tell stories, and three Explorer features help them do it. The most useful one, side-by-side view, splits the interface in two, allowing users to demonstrate the relationship between different variables by placing them alongside each other. For

the tool is ideally suited for live exercises and in-class assignments. But if storyboards resemble slide decks they also suffer by comparison. There are simply too few options for customization to make Explorer’s tool anything more than a novelty, especially compared to the menu (and sub-menus, and sub-sub-menus) of options that greet and occasionally confound PowerPoint users. Though you can add images and audiovisual elements to storyboard presentations, including interactive elements like the

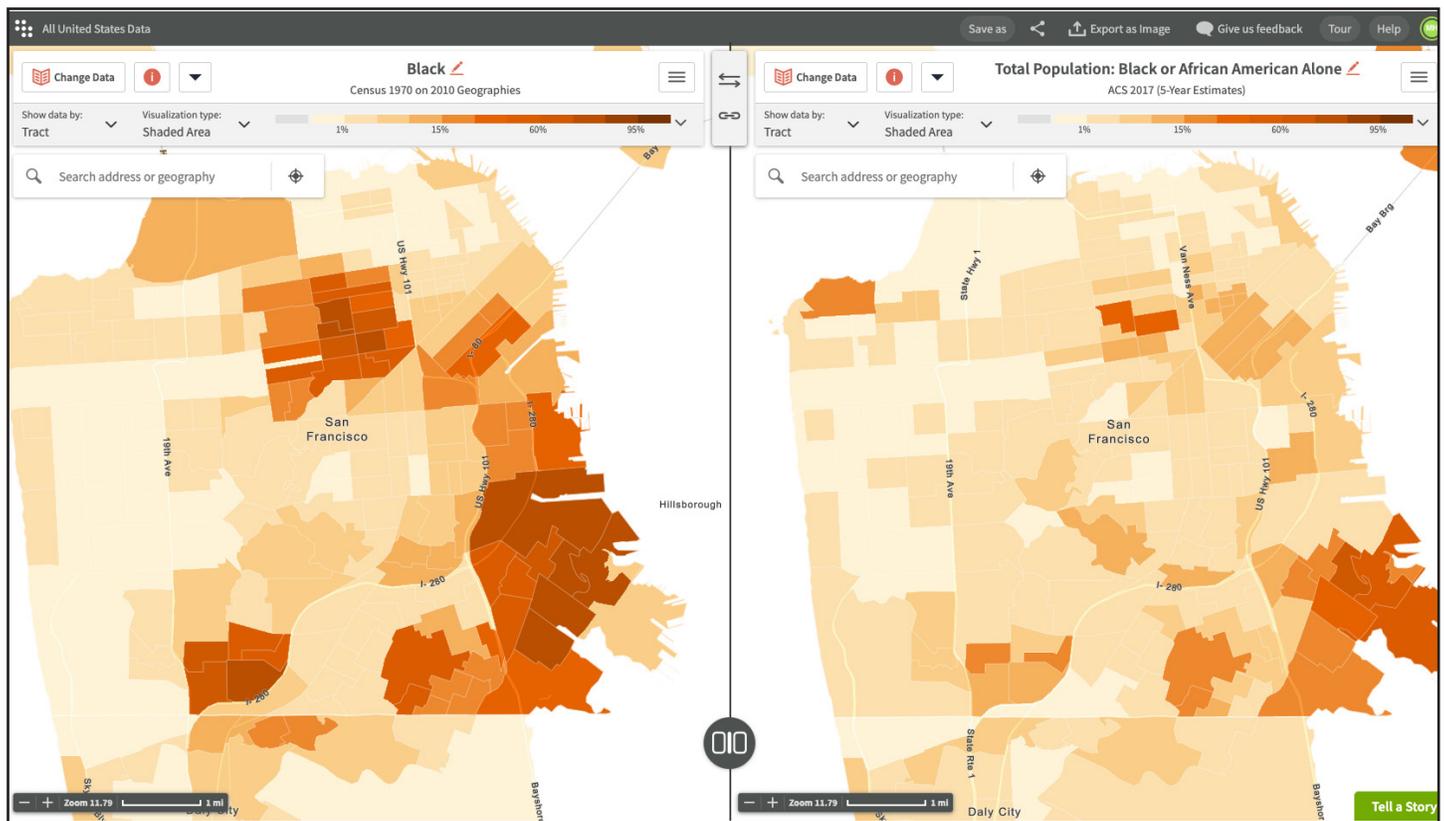


Figure 7: Social Explorer Side-by-Side Feature

example, Figure 7 compares San Francisco’s black population at two points in time, 1970 and 2017. The swipe tool is similar to side-by-side view, only it places one map atop another so that by moving a dividing line back and forth you can dynamically reveal changes from one map layer to another—a bit of stagecraft for emphasis.

Users can also create presentations using Explorer’s storyboard tool, a built-in if spartan version of PowerPoint. Because it loads within Social Explorer

the aforementioned swipe tool, most users will prefer to export their creations and tweak them in PowerPoint or Google Slides.

**ACCESSIBILITY**

When I first reviewed Social Explorer in 2017, I asked Andrew Beveridge, co-founder and CEO, about the lack of accessibility documentation. He admitted his company was “behind” in this respect, but that it would “do everything to ensure reasonable accommodation” (Beveridge 2016). Social Explorer has since

updated its website with a Voluntary Product Accessibility Template, which describes the software's accessibility features. While Explorer "may not be accessible to all visually impaired users" (Social Explorer 2019), it can be used in conjunction with a screen reader, and users can enlarge map elements to make them more legible. Maps can also be specially colored to accommodate users with color blindness.

In future, the company plans to achieve AA conformance (AAA is the highest level) with the World Wide Web Consortium's Web Content Accessibility Guidelines. These guidelines help authors make content "accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and combinations of these" (Caldwell 2008). Explorer also plans to fully comply with section 508 of the Rehabilitation Act of 1973, work that is now "under development" (Lacevic 2019).

## Critical Evaluation

Social Explorer's chief virtue is ease of use, but it comes at the cost of specialization. Microdata, data about individual people and housing units, are not included, nor are historical geographies from older decennial censuses or intercensal data from 1790 to 1945 (Cisela et al. 2016). For hardcore data analysts this lack may prove a deal-breaker, but I doubt Social Explorer has this sort of customer in mind. Explorer is demography for dummies, data visualization for the rest of us. It's a product as welcome in a high school classroom as the newsroom of the *New York Times*. Explorer's power lies not in the granularity of its data manipulation, though what's here is remarkable. Rather, it lies in the software's transmogrifying effect on intimidating data. It transforms eye-glazing rows of dry statistics into vibrant maps full of meaning. It awakens curiosity. It makes census data, dare I say it, exciting.

That said, there are limits to what you can do with Explorer and those limits will vex some users. You

can only combine "eligible variables" from the same category and survey year, e.g., a map showing the white, black, and Asian populations of 1980 Cedar Rapids. But that is the extent of Explorer's aggregation. You can't pick and choose from all variables in order to map compound figures. I've used Explorer in marketing contexts, for example, and here the product reveals its limitations. If I want to locate readers of *Popular Science* by using data from the magazine's media kit, I must combine multiple factors into one compound variable: sex, median age, household income, educational attainment—you get the idea. But this is not a feature Social Explorer currently supports, and I doubt it figures into the company's priorities, given its social science roots. While this limits Explorer's classroom applications, not to mention professional ones, the richness of its data, coupled with multiple options for export, means that users can obtain, overlay, crunch, or otherwise manipulate data to arrive at a reliable approximation of their needs.

## Competitive Products

Similar products in this market include PolicyMap, Maptitude, and SimplyMap. The last two are business and marketing oriented, leaving PolicyMap as the most direct competitor. While the programs share many features, Social Explorer is easier to use, a consequence of its attractive simplicity and thoughtful interface design. The tradeoff is that PolicyMap is more powerful, especially for sociological or journalistic queries. PolicyMap is a product of the Reinvestment Fund, a nonprofit that "integrate[s] data, policy and strategic investments to improve the quality of life in low-income neighborhoods" (Reinvestment Fund 2016). Consequently, the software contains, in addition to demographic variables, data on housing, lending, education, and quality-of-life indicators such as food access and proximity to environmental hazards. For more information on PolicyMap, consult the reviews by LaGuardia in *Library Journal* and Nicholson in <http://choicereviews.org/review/10.5860/CHOICE.50-6537>.

# Purchase Contract

## ASSESSMENT

Until April 2019, Social Explorer was distributed by Oxford University Press. In addition to managing the company’s subscriptions, Oxford provided libraries with COUNTER statistics, a practice that was dropped when Explorer assumed control of support and sales. But according to Ahmed Lacevic, Social Explorer’s co-founder and executive vice president, the company understands the importance of providing its library customers with usage data. Accordingly, COUNTER support is now “literally on the top of our development list” (Lacevic 2019). Lacevic predicts that COUNTER will certify Social Explorer “within the next two months if not sooner” (ibid).

## COURSE PACKS

Faculty may include static images such as maps and charts in their course materials.

## DATA MINING

Social Explorer permits text and data mining so long as copies aren’t shared with other people or used for commercial purposes. Publications resulting from such mining must acknowledge Explorer’s role in providing the underlying data.

You can’t loan Explorer, but subscribing libraries can share exports with non-subscribers.

## Pricing

Social Explorer has three tiers of subscription access. Individual accounts cost \$100 per month, but organizations needing concurrent access for 2, 5, 10, or 20 people can subscribe at a monthly cost of \$150, \$250, \$350, and \$500 respectively. An enterprise tier for larger organizations, including academic libraries, varies in cost by institution size and number of concurrent users. Social Explorer promises special pricing to library consortia and ac-

## Scorecard

<b>Composite Score</b>	<b>4.25</b>	
<b>Content</b>	<b>4.0</b>	Social Explorer is rich in U.S. data, but those needing international sources may find it wanting.
<b>User Interface/Searchability</b>	<b>5.0</b>	The interface is a pleasure to use. It loads quickly, runs smoothly, and never overwhelms the user with options.
<b>Pricing</b>	<b>4.0</b>	Social Explorer adds enough value to public data to justify the four-figure sum my library pays, but independent researchers may find the price too steep.
<b>Purchase/Contract Options</b>	<b>4.0</b>	The lack of COUNTER stats is disappointing, and full accessibility continues to elude the company. But Explorer has shown that it’s serious about addressing product deficiencies.

ademic customers who lack enterprise access. Trials are available by request.

## Authentication

Social Explorer provides authentication via IP address, EZ-proxy, and Shibboleth. Users can also create personal accounts with their institutional login credentials or apply for a three-month, university-linked license for off-site access. Explorer will soon allow libraries to manage a list of approved accounts for permanent off-site access.

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## About the Author

Michael Hughes is an instruction librarian and associate professor at Trinity University in San Antonio, Texas.