



## Using the MySpace Friend Mapper to Build Connections for an Investigation

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Social networking sites are attracting increasing numbers of criminals who are looking for ways to perpetuate illegal activity. Predators, gangs, fraudsters, terrorists and others are leaving a trail that can be tracked if an investigator knows how to follow the information through the complex maze of connections that make up a social networking site.

A new mapping tool is available on the Internet for MySpace.com, the popular social networking Web site. The tool, called the MySpace Friend Mapper, was invented by United Kingdom-based Web site developer Thomas Whiteley "for fun," but it could be a key advantage for law enforcement in their efforts to investigate criminal activity. This tool uses an individual's MySpace profile to create a visual diagram of the connections between that person and his or her top MySpace "friends" – in other words, a clickable map of these relationships.

### Value of the Mapping Tool

SEARCH looked at the mapping tool and recognized the value this diagram could have to investigators. The diagram:

- Automatically builds the connections between MySpace friends without investigators having to manually click between profiles.
- Allows investigators to visually see connections between people without having to build a graph of these connections themselves.
- Builds connections to a person that might not have been available by just viewing that person's top friends.
- Provides a useful diagram that can be added to a case file and used in court.

The mapping tool could be used to link suspected predators to their targets or drug dealers to their contacts, and it

could be especially useful in linking the MySpace profiles of gang members. In these cases, it creates a visual network of connections based on a single point profile within the gang.

Social networking Web sites work by creating connections between people. The largest of these social networking Web sites in the United States is MySpace.com, which contains more than 198 million user profiles. MySpace handles these connections through the process of a "friend request." Person A sends a friend request to Person B. Person B logs into his (or her) MySpace account, sees he has a new friend request and then can choose to either approve or deny the friend request of Person A. If he denies the friend request, no connection is made; if he approves the request, the profiles of the two individuals become connected as part of a "friend network." (Figure 1 shows a diagram of a friend network.)

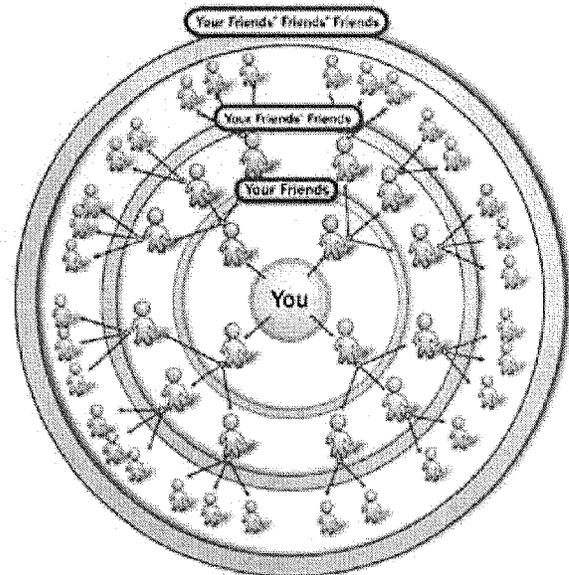


Figure 1: Diagram of a friend network from <http://computer.howstuffworks.com/myspace.htm>



## How the Tool Works

The MySpace Friend Mapper developed by Thomas Whiteley, available from the Web site [www.lococitato.com](http://www.lococitato.com) (*loco citato* is Latin for “in the place previously cited”), makes a visual diagram of a person’s friend network. This tool takes the person’s top friends on MySpace and plots their connections and the connections of these people and *their* top friends (and on and on) for up to 75 people. “Top friends” are defined as the people the MySpace user selects to be displayed in the Friend Space of his MySpace profile. A person can have, in increments of four, anywhere from four to 40 top friends. It is usual for a person to have many more friends than can be displayed in the top friend area.

It is important to remember that not all connections will be visible on the map. First, only the person’s top friends will be plotted. Second, the map can only make connections that are available to the public. If a MySpace user has his profile set to “private,” the tool cannot make connections *from* that profile.

A profile on MySpace.com can be set to either public or private. If the profile is set to private, only the people that the user has accepted as his friends can view the information on his profile. A public profile can be viewed by any other user. Since the information on a private profile cannot be searched using the MySpace Friend Mapper, the top friends of the person with the private profile are not added to the MySpace connections map. However, the tool *can* make connections *to* that private profile if another person on the MySpace map who has a publicly available profile has the person with the private profile listed as one of his top friends.

For example, let’s look at a very small friend network. Person A has Persons B, C, D and E as his top friends. Person B has Persons A, C, F and G as his top friends. Person C has Persons A, D, H and I as his top friends. If neither Persons A, B or C have their profiles set to private, a friend map started with Person B would look like this:

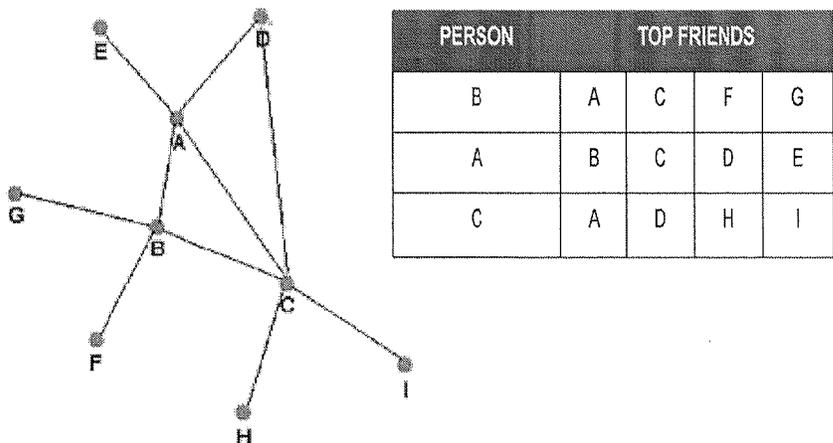
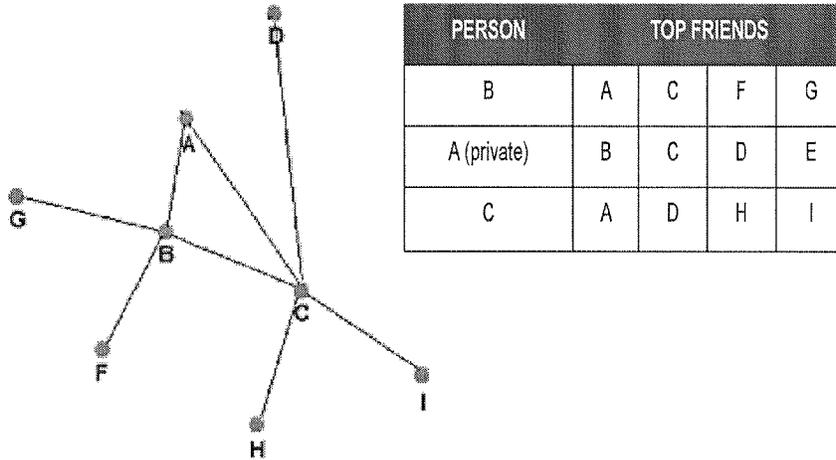


Figure 2: Friend map centered around Person B, with Persons A, B, and C having public profiles

Now, if all the top friends stayed exactly the same, but person A made his profile private, then the same friend map would look like this:

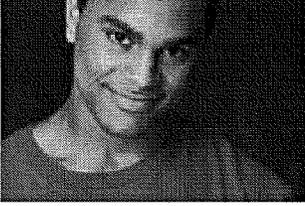


**Figure 3: Friend map centered around Person B, with Persons B and C having public profiles, and Person A having a private profile**

You can see that Person E disappeared from the friend map in Figure 3 because there was no publicly available connection from persons B or C. The connection between Persons A and D disappeared because the mapping tool could not access that connection because of Person A's private profile. The connections between Persons A and B, and Persons A and C still remained because these connections were publicly available from the public files of Persons B and C, respectively.

Based on these concepts, it is important to remember that you cannot start the MySpace Friend Mapper with a private profile because it will have nothing to build from. Even if you are friends with another MySpace user and are able to view his private profile, if you enter that private profile into the MySpace mapping tool, nothing will build. Also, if the MySpace profile is not working (currently displaying an error on the site), the mapping tool will not work.

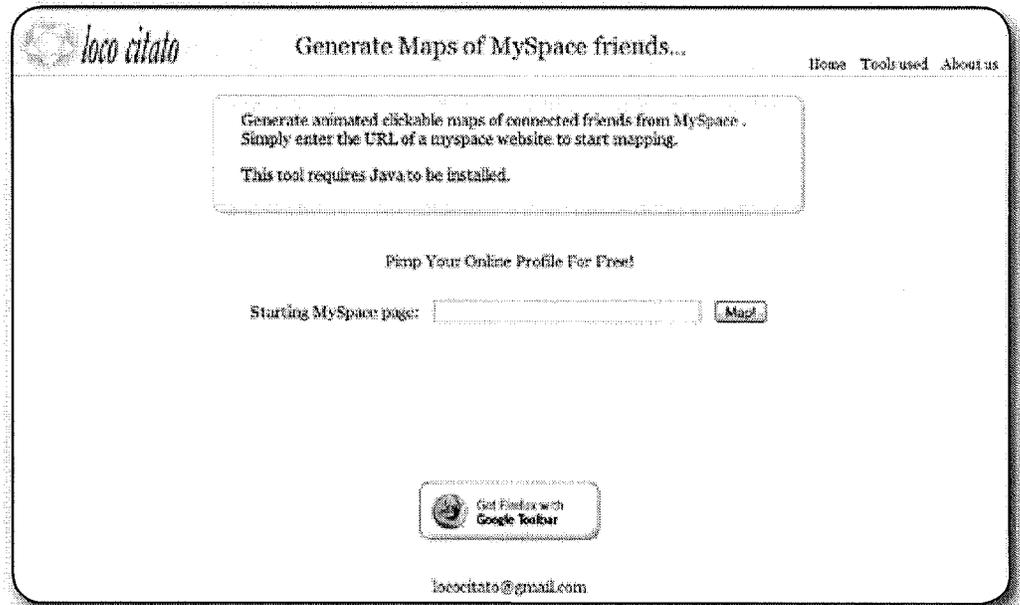




## How to Use the Tool

The MySpace Friend Mapper is available at <http://www.lococitato.com/myspacefriends/myspacefriends.html>. You must be able to run Java for the tool to work.

To start the Java applet, select the MySpace URL you want to use as your starting point and copy that into the **Starting MySpace page** text box. Click **Map!**



**Figure 4: The MySpace Friend Mapper from [www.lococitato.com](http://www.lococitato.com)**

The Java applet will start to run and red dots with blue connections will start to appear and move around the page. The applet is running and continuing to build connections as long as the dots are moving. Once the movement stops, the map is ready to explore. A completed map will look like Figure 5:

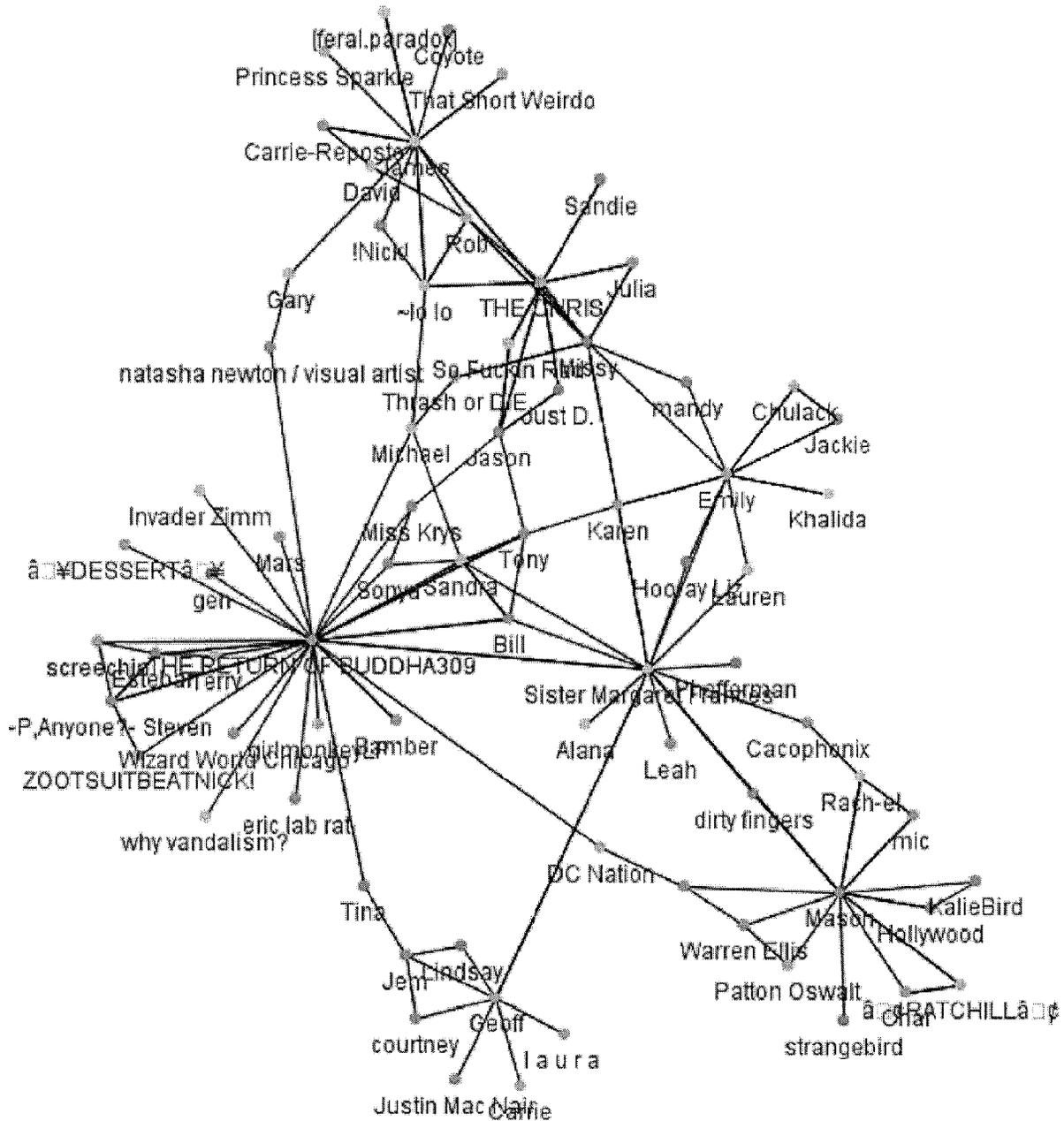


Figure 5: A completed MySpace friend map from [www.lococitato.com](http://www.lococitato.com)

This map was centered around Sister Margaret Francis. Sister Margaret Francis has a total of 152 friends, but only 12 top friends will be mapped. Therefore, only the 12 top friends will be mapped. Since the site maps connections of up to 75 people, it will then go to Sister Margaret Francis's top 12 friends and build from there. This will continue until 75 profiles have been detected.

Of these 12 top friends, seven of them have private profiles. Therefore, the connections based on these seven people are only available if *another* one of Sister Margaret Francis's friends has a publicly available connection to one of these people.



Also, notice that Sister Margaret Francis has more than 12 connections to her dot. This is because there are other people who have her as one of their top friends, even though she doesn't have them in her top friends area. Thus, the connection is made not *from* Sister Margaret Francis *to* them, but rather *from* them *to* Sister Margaret Francis.

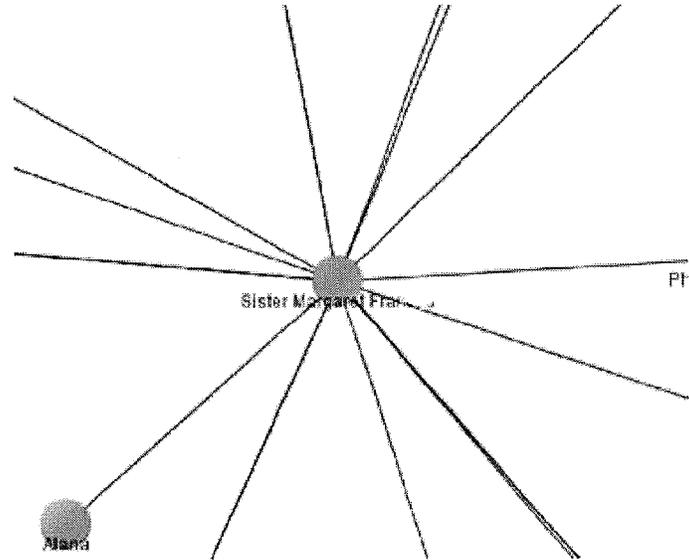


Figure 6: Fourteen connections to Sister Margaret Francis

The MySpace Friend Mapper will display the profile picture and basic information (age, gender, and last login) of the person when you hover your mouse over the red dot in the completed MySpace connection map, as seen in Figure 7. This information will be shown for all profiles, whether private or public. This display works with FireFox, Internet Explorer and Opera. This information will appear directly below the map. New features on this tool are constantly in development. The features are first configured to work for FireFox, so to most effectively use this tool, FireFox is recommended.

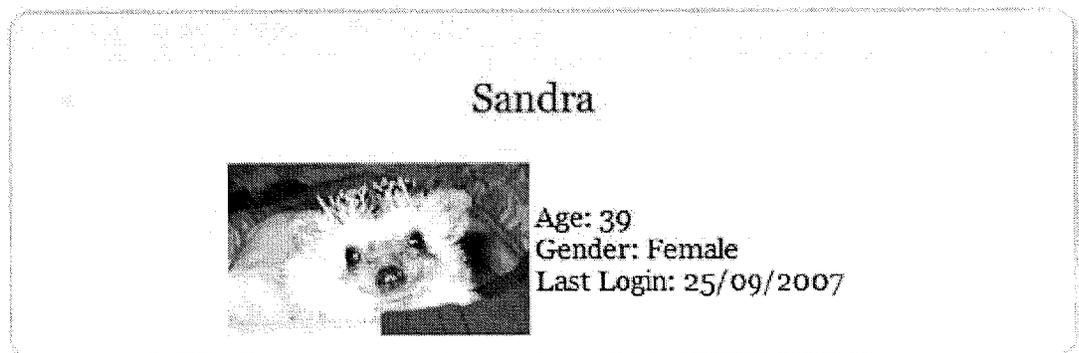
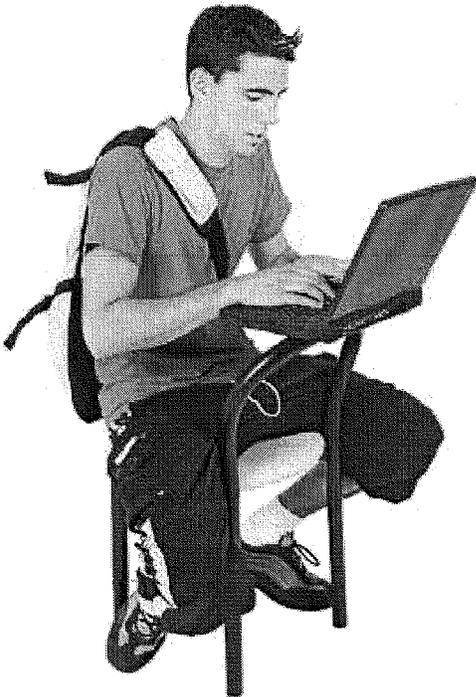


Figure 7: Display shown when your mouse is hovered over a red dot using FireFox

You can left-click on the red dot to display that person's MySpace profile page. You can hold the left mouse button down to move the map. You can hold the right mouse button down and move your mouse up or down to shrink or expand sections of the map.



Having access to the latest tools and techniques is crucial for an investigator in order to stay ahead of criminals in the fight against crime. The MySpace Friend Mapper is useful in a number of ways. A map of friends allows the investigator to easily make connections without hours of manually clicking through MySpace pages to see if a connection exists. While this will not show all connections to a particular profile, it does make a good starting map of the connections, which can greatly aid in an investigation.



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