

Updated Vision Statement Assignment

Overview

Your Vision Statement is a document describing a software system that you believe would improve our world. Your Vision Statement can focus on any major world problem that you like. Examples include pollution, poverty, terrorism, fascism, disease, natural disasters, racism, etc.

The **updated vision statement** is an improved version of your basic vision statement. This updated Vision statement is 2–3 pages long (single-spaced, 12-point Times Roman font, 1-inch margins) and is due before class on Tuesday, November 1st. The goal of this update is to provide more details, as well as to correct any errors in your first version.

Your updated Vision Statement assignment

For your updated Vision Statement, submit a PDF file that answers the following questions:

1. What world problem are you concerned about?... This is a revised version of the first section of your original statement. Add an image illustrating the problem. You can get legal images by going to <http://search.creativecommons.org/> and using that website to search for legal Flickr images. (FYI, only the search through Flickr is reliable; the other searches sometimes turn up images that you cannot legally reuse, so stick with the Flickr search.) Be sure to cite the source of your image (a URL is fine).
2. Why is this problem important?... This is a revised version of the second section of your original statement. Add a sentence or two explaining in more detail why this problem is important. Can you find a statistic showing that lots of people suffer from this problem? Can you find a quote from a prominent politician or other leader, saying that this is a big problem? Can you find any news articles that describe a heart-breaking anecdote, illustrating why this problem is a big deal?
3. What aspect of this problem seems particularly important to you? Add a sentence or two explaining the relevance of this problem to you, personally. Do you know people who have experienced this problem? Have you, yourself, experienced it personally? Have you previously tried to help solve this problem (e.g.: worked at a homeless shelter)?
4. How could a new software system help to solve this aspect of the problem? In the second half of this course, your classmates will be implementing a portion of the system. Therefore, revise this section of your vision so that it is clear what portion of the system you really would like your classmates to implement in the next couple weeks. Also, add a diagram or two, illustrating what the system looks like. A dataflow diagram would be a good choice.
5. Why do you think that this idea will make a big impact on the world? Revise this section if you can think of stronger arguments why the system will make a big impact. Can you provide statistics, graphs, quotes, or anecdotes to support your argument? Also, identify and address any potential problems with the proposed system. What problems might occur if the system is deployed, and how would those problems be dealt with in the future? This is where you "seal the deal", so to speak, on convincing your fellow students that your system deserves their votes.
6. What sources did you use in writing this Vision Statement? Update this as needed.

Example Updated Vision Statement

The following is an example Updated Vision Statement about homelessness to give you an idea of what your Updated Vision Statement should look like.

Vision Statement, updated version (example by Chris Scaffidi)

(FYI, I have highlighted new stuff. You don't need to do any highlighting. I'm just doing it to help you see what's new and improved, to give you ideas for improving your own vision.)

What world problem are you concerned about?

Homelessness is a significant problem in many nations where numerous people lack a permanent, safe place to spend their nights. Many of these people lack enough income to pay for housing. Some have drug addictions that prevent them from holding down a job, while others have simply come upon hard luck in the form of foreclosure or medical problems [1].



Figure 1. Homeless in Sugamo [3]

Why is this problem important?

At any moment in time, more than half a million people are homeless in America alone [2]. Homelessness is a significant individual and societal problem for four reasons [2]. First, homeless people are at increased risk of getting ill from inclement weather or unsanitary conditions. Second, homeless people are at increased risk of physical harm from other people. Third, lack of a home makes it difficult to store the basic objects needed for getting a job, such as a suit and a tub or shower; this, in turn, leads to a self-reinforcing cycle of poverty and homelessness. Fourth, consequently, homelessness can reinforce ancillary problems such as lack of medical insurance, which means that when they do end up in the hospital, society must bear the cost.

What aspect of this problem seems particularly important to you?

Homeless shelters play an important role in helping to break the cycle of homelessness and poverty [1]. Long-term shelters provide a safe place for people to store objects, a mailing address, and a steady source of food. Some point people in the direction of government programs that can provide financial assistance with getting housing. Other shelters provide medical care. Even the most basic shelters provide food and a warm place to get through the night.

However, shelters often lack sufficient materials to help the homeless in their geographic area. For example, they might lack adequate supplies of food, bedding, and medicine. They also might lack adequate information, such as information about new government programs, local community programs, or other homeless shelters that could take up the slack.

Personally, my family often shopped at Goodwill when I was growing up. While there always was plenty of clothing, it often was difficult to find certain items such as an adequate selection of shoes or certain kitchen items (such as good can openers). Fortunately, we were never homeless, but like Goodwill, the homeless shelters might have just as hard of a time keeping items stocked for use by their visitors.

How could a new software system help to solve this aspect of the problem?

A new software system could help to supply homeless shelters by putting them in contact with people who are willing to provide materials to the shelters. This would allow shelters to

draw on the generosity of individuals, government agencies, and other shelters that happen to have a surplus of some materials.

The software system would have three parts.

The first part, shown in Figure 2 below, would be a website and a database that keeps track of people and organizations who are interested in participating as donors or recipients. For example, individual people could register with the website to indicate that they are willing to donate materials periodically, and shelters would register as recipients. Shelters could indicate that they want to receive certain materials. Then, donors could log into the website and find unmet requests. They could sign up to donate the requested material. The system would notify the shelters that their items are on the way.

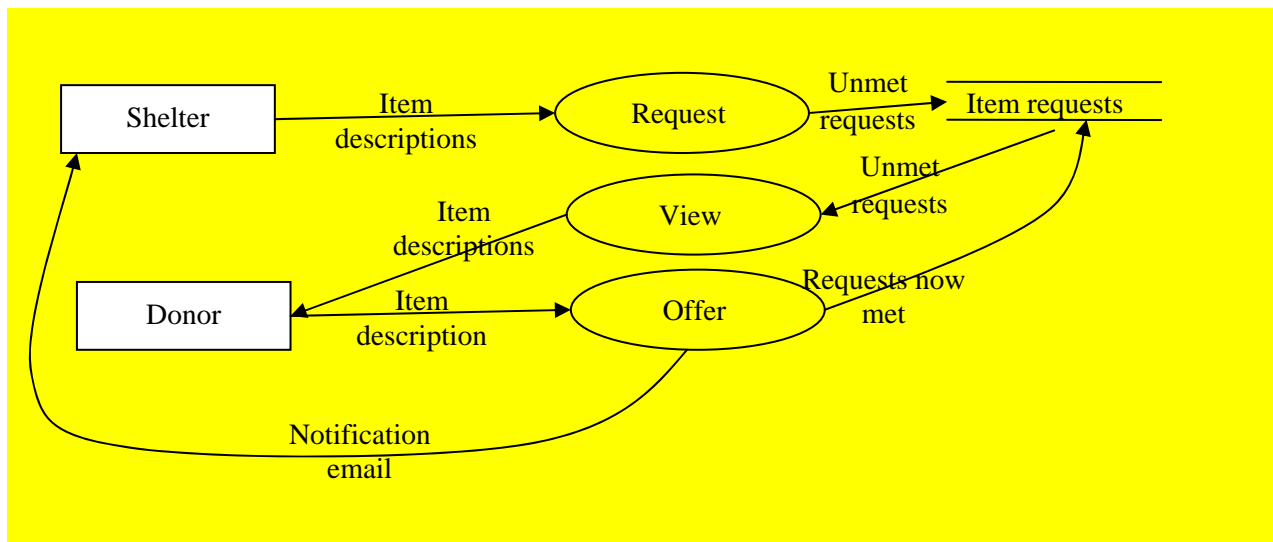


Figure 2. Dataflow diagram showing how the first part of the system relates to Shelter and Donor users.

The second part of the software system would provide shipping services. Any donor could use this service to sign up to have materials shipped to a homeless shelter. The website would then outsource the shipping responsibilities to a selected shipping partner, such as FedEx or UPS. Low rates would be negotiated ahead of time with these companies (volume discounts), but the donors would be charged a slightly higher rate than this lower rate; that way, the website will net a small amount of earnings that could be used to pay for the hosting and maintenance of the site.

Of course, these first two parts of the system are useless until lots of donors and homeless shelters register for the site and start to use it! Consequently, the third part of the software system is intended to help make donors and homeless shelters aware of the website. This part of the software system will search through the web for blogs that discuss homelessness. In addition, it would search for the email addresses to contact homeless shelters located in major American cities. After collecting this information, all the blog owners and homeless shelters could be emailed to ask for their assistance in publicizing the website. Figure 3 shows how this process would unfold.

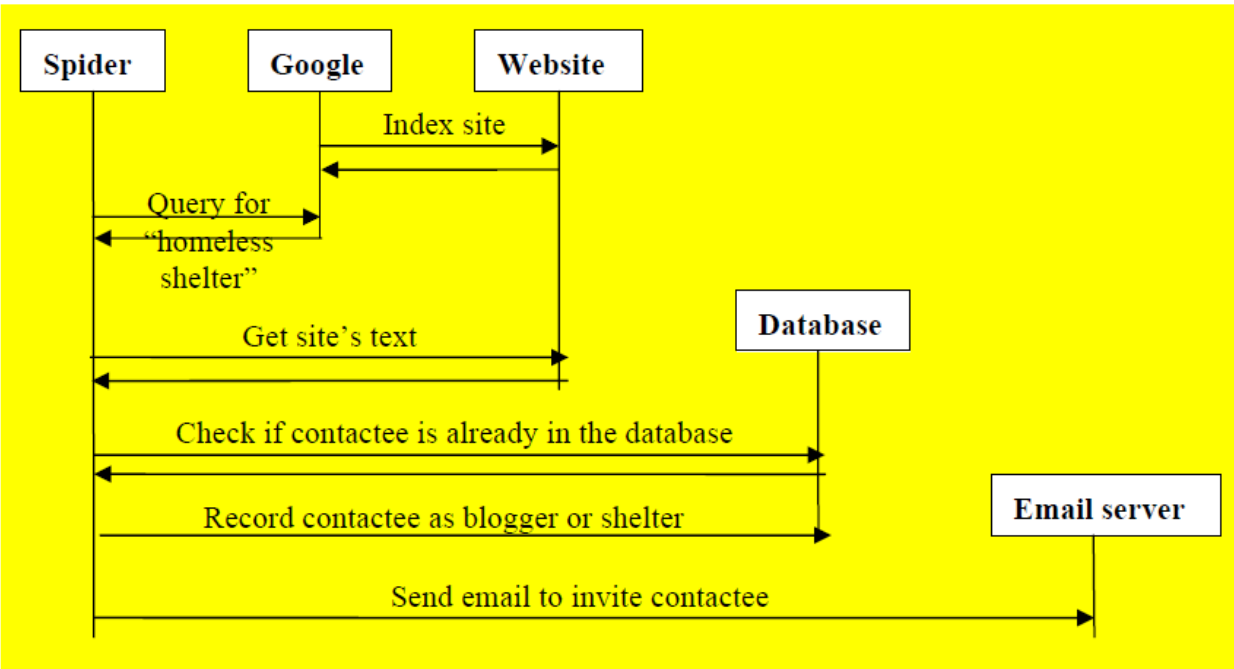


Figure 3. Sequence diagram showing the recruiting of bloggers as advertisers of the system

Of the system's three parts, the first is probably most amenable to immediate implementation. The reason is that the second and third parts would be difficult to implement right now. In particular, the second part would require exploring shipping options and would involve contacting shipping companies to negotiate rates. Also, implementing the third part would require designing fairly sophisticated algorithms for sifting through web pages to find bloggers, and it would take a while to contact bloggers and get them on board with this plan. In contrast, the only ingredients required for the first part of this system are a web server and a database.

Why do you think that this idea will make a big impact on the world?

There is more than enough food and clothing in the world to meet the needs of every person. The problem is getting it to those people. While there are many stingy people in the world, there are many generous people who would willingly donate materials to homeless shelters, if only they knew where to send it. The generosity of people has been amply demonstrated after many natural disasters, such as Hurricane Katrina, and is reflected in the hundreds of billions of dollars that they donate every year to charities [4]. In addition, numerous bloggers have taken hours out of their day to bring attention to the plight of the poor, and many of them probably stand ready to bring attention to causes that will reduce homelessness and other related afflictions. The goal of this system is to help people get organized and mobilized to help the homeless and make the world a better place.

What sources did you use in writing this Vision Statement?

[1] Donna Jones, "Homeless survey shows numbers declining in Santa Cruz, despite ailing economy", San Jose Mercury News, Aug 5 2009,
http://www.mercurynews.com/centralcoast/ci_12994126

[2] "Preventing Homelessness in America", University of Richmond, 2003,
<http://www.solutionsforamerica.org/thrivingneigh/homelessness.html>

[3] James Fischer, "Homeless in Sugamo", 2006,
<http://www.flickr.com/photos/jimfischer/204974657/>

[4] Arthur C. Brooks, "A Nation of Givers", in *The American*, March/April 2008,
<http://www.american.com/archive/2008/march-april-magazine-contents/a-nation-of-givers>

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