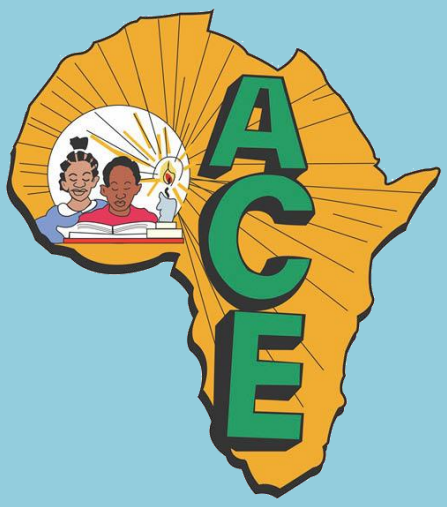


DATA MANAGEMENT FOR NONPROFIT ORGANIZATIONS

A project completed for African Community Education Inc. in collaboration with Worcester Polytechnic Institute

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WPI

Abstract

This project evaluated the data management system of African Community Education Inc. (ACE) and recommended a new strategy to integrate their information and improve efficiency. To accomplish this, ACE began collaboration with WPI to identify issues in their current systems and determine a prioritized list of the agency's wants and needs. The project team analyzed results from this process and provided recommendations to the agency. In addition, the team assisted ACE through the decision making process, began the implementation of the new system, and delivered an implementation plan that included a third party to finish the implementation process and provided training resources. These resources were compiled to help the organization become self-reliant in training new staff/volunteers, maintaining, and troubleshooting the system.

Executive Summary

Introduction

African Community Education Inc. (ACE) is a volunteer based non-profit organization in Worcester that provides tutoring and homework assistance to children who are refugees or immigrants from many African countries. The organization had been rapidly expanding since its founding in 2006. One major hindrance was that the organization's current data management system was incapable of accommodating the growth of information needed to keep track of volunteers, employees, students, grants, and donors. ACE had been unable to update and recondition their data management system due to the lack of resources and time. Addressing this problem was critical for continuing the organization's quality services to the community. Our team worked with ACE to improve their data management system. Our primary goal was to evaluate and establish a more suitable data management system at ACE that fit their specific needs.



Figure 1 - Students studying at ACE (photo credit: ACE, 2014).

Literature Review

Through our research, we learned how non-profit organizations could benefit from implementing better processes and data management systems. These systems can improve internal dynamics, making the organization more efficient as a whole.

We discovered that ACE uses their data management systems to track the information on approximately 350 volunteers and staff members, 400 students, 350 donors, and all of their grants. We also learned that the agency faced a number of challenges; their data was stored and shared in multiple locations including Dropbox, Google Drive, Excel Spreadsheets, and basic

Microsoft Access databases. With information in multiple locations, it was difficult to keep track of updates and the data were more susceptible to errors.

There are five major types of databases: file system, hierarchical, network, relational, and object-oriented. We concluded that ACE needed a relational database management system since their organization is based on relationships with all of their constituents. We investigated constituent relationship management (CRM) systems and how they are ideal for organizations like ACE. A CRM would be able to manage the relationships of all of their constituents in one system.

We also researched the most effective ways to train people to use new technology. Before training can begin, it is important help the agency understand the benefits they will gain from switching from previous processes. Preparing employees for such a change helps smooth over the transition period, making educating the agency easier and reducing potential negativity towards changes to come. After this step is complete, educating staff through the use of training sessions has been shown to provide a solid foundation for employees. Supplementing sessions with handouts, visuals, and access to training manuals also dramatically increases the effectiveness of these sessions. When these materials are not enough, having a strong relationship with IT staff affiliated with the new system is a must for ensuring sustainability once our team is no longer working with the agency.



Figure 2 - Students from ACE (photo credit: ACE, 2014).

Methodology

Initially, we assessed ACE's database to understand the systems that were currently in use and the specific features that needed to be changed or updated. Our team began by conducting an inventory of their hardware and software to determine the capabilities of their computers. This allowed us to determine whether certain databases would be compatible or not. One-on-one system reviews were conducted with staff members to learn more about each database. In these reviews, problems were identified with the current system and staff members discussed capabilities that they wanted to see in a new database.

To discuss some of the more important topics, a focus group was arranged consisting of all staff members that would be working with the database. During this meeting, the possibility of implementing a CRM was introduced. As a result of the positive feedback from the agency, we tailored our search to systems with this feature. We also discussed system security, and the idea of switching from their local-access system to a database that was online. Some of the employees expressed concerns about having their information on an online cloud. Their concern emphasized the importance of finding a system with an excellent backup feature as well as high security. Additional consideration was given to specific features that the staff members wanted to see in a new database. We provided them with a list of the most popular features mentioned in the one-on-one reviews, and gave them the opportunity to discuss these options in a focus group. We found that there was a great need for the employees to be able to track students by different programs, by student attendance, to schedule events easier, to keep track of retention rates, to track partners of the agency, and to add more information to constituent profiles. Overall, it was determined that the database at ACE should be an affordable, secure CRM that was able to manage all constituents.

Recommendations and Discussion

After the focus group, we developed a list of important features that ACE desired in a database and compiled a decision matrix. For each database reviewed by the team, number grades (0-5) were assigned, corresponding with a rubric. Percentage weights were assigned to each feature based on feedback provided by the agency. This matrix allowed us to determine which databases most closely fit ACE's needs. We presented approximately eleven databases to ACE, and identified the top four choices according to the results from the decision matrix (Little Green Light, Neon CRM, Salesforce, and GiftWorks). Our overall recommendations included short-term goals for the upcoming year as well as a long-term plan of action that could be implemented over several years.

After the staff members at ACE discussed their options, Salesforce was determined to be the best option. Since this database was designed specifically designed for non-profit organizations, we helped ACE to apply for The Power of Us Program, which allowed them to have ten free enterprise license accounts for their database. Salesforce is also a system comprised of applications, each responsible for a different constituent group within the database. As a team, we recommended appropriate applications for the staff members and helped them decide which would be the most useful for managing their data. The end of our project involved creating a sustainable plan for data migration, as well as training. A document was created that detailed the process of data migration, including pictures and step-by-step instructions. We also reached out

to multiple technical consulting companies and compiled a list so that ACE had resources available if they needed help transferring their data from their old to new system. Finally, we compiled a document containing links to online training materials that could be used when learning to use Salesforce and training others to use it.

Conclusion and Deliverables

Our project helped ACE to make an informed and unified decision when choosing a new database. By the end of our project, the staff members had a database that was set up and ready for data migration. They also had a plan to transfer the data, maintain the system, and a list of resources if they wanted technical support during the system transfer. Additionally, they came away from this experience with training materials for continued maintenance and future learning for new staff members.

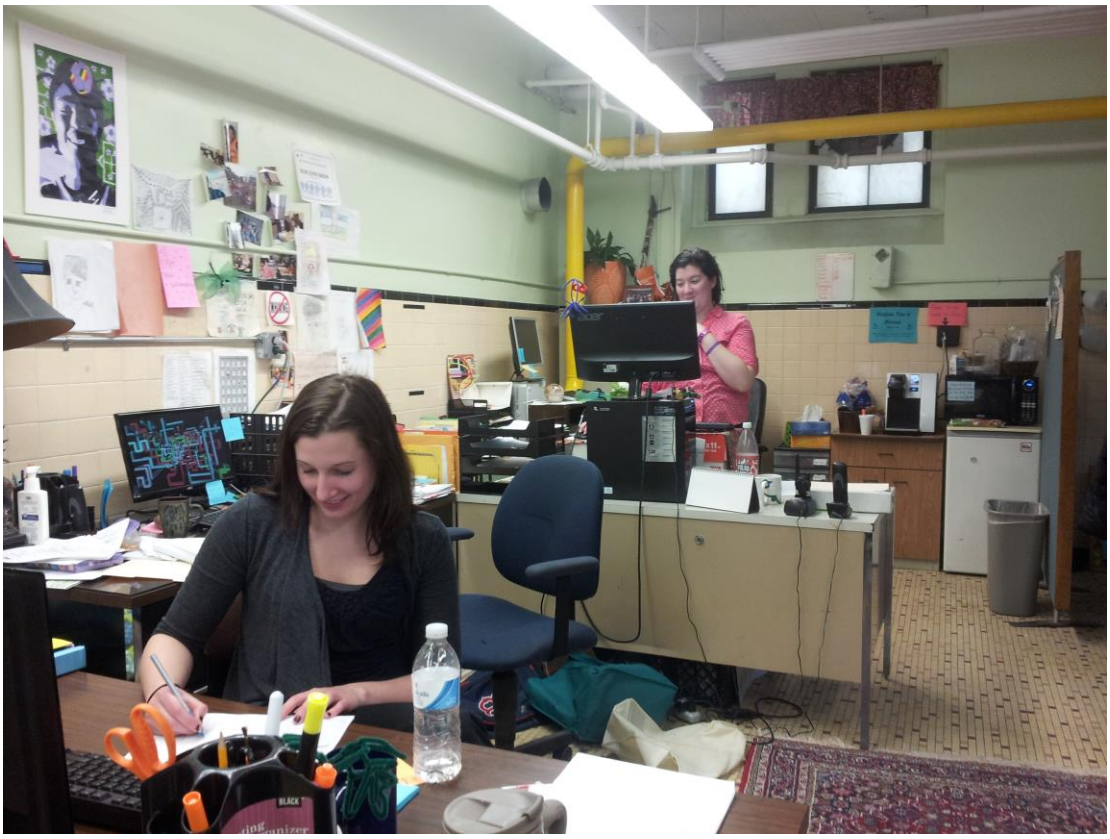


Figure 3 - ACE staff in the office.