

**Christian Life Skills**  
Student Consultant, Nancy Chen  
Community Partner, Barbara Rogers

**Part I: The Consulting Situation**

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*Organization*

Christian Life Skills (CLS) was founded in 1986 by Barbara Rogers. CLS has three sites where its programming is housed and implemented. The main administrative office is located at the Larry Brown Learning Center of Union Baptist Church on 2106 Monongahela Avenue in Swissvale, Pennsylvania. The organization provides training in mentoring, life skills, and programming for at risk and high risk youth and their families. Christian Life Skills is a non-profit organization dedicated to the following mission: *“To empower families and youth to live spiritually healthy and productive lives through the Practical application of the Word of God by: Instilling Christian life skills, Mentoring, Training, Nurturing, Networking with churches, and Community Groups.”* CLS is a non-denominational organization which links strongly to the community. It interacts with churches in the region to help them to be trained to carry out life skills and mentoring, agencies that make referrals to CLS, and individuals by word of mouth. Volunteers, many of which are parents or grandparents of children who have been through CLS’s programs, also help carry out the mission of CLS. There are also connections with at least four institutions of higher learning from which students are drawn for volunteer work, various kinds of community service activities involving mentoring younger youth, field placements, and class projects.

Mrs. Rogers would like to expand her knowledge and capacity in using technology, because the organization has had to depend on volunteers who come and go, a variety of former staff now laid off due to budget cuts, and many of the staff having different ways of doing things. Thus, CLS has not been able to maintain close supervision of how staff maintained files up to their standards. CLS does not have the capacity to generate reports and newsletters in a timely manner, which greatly hinders effective communication with donors and potential donors. Communication also needs to be improved, since there is no technology in place for efficiently organizing and implementing the communication with churches, agencies, pastors, volunteers, donors and mentors.

*Technical Environment*

There are three computers used for administration. Two are desktop machines and one is Mrs. Rogers’ personal laptop owned by CLS. One of the desktops has been in use for seven years and operates using Windows 95. The other desktop was donated by one of the board members last year and uses Windows 98. The other laptop computer also runs on Windows 98. The two desktop computers share an HP printer. The computers are not networked and Internet connection is through dial-up using America Online. CLS mainly uses Microsoft Word for writing documents and QuickBooks for keeping financial information.

*Technology Management*

Mrs. Rogers is responsible for managing the technology. When a problem arises, she usually reports problems and has volunteers fix them. There is one volunteer that comes in to fix the copier and also inspects the computers.

*Internal and External Communications*

Files are not shared internally and the only mechanisms to ensure data security are username and passwords needed to log on to the machine. The staff primarily communicates through telephone. The

organization has the capacity to access the web. There is also a website supporting its mission but it is not regularly updated. CLS also sends out a newsletter by mail. Most of the information is sent to their constituency through postal services.

#### *Information Management*

Because CLS moved from its central office to avoid the expense of the rent, all three sites have resource materials and files that belong to CLS, which were dispersed when churches brought them into the sites where they currently reside. CLS keeps track of critical information about finances, donors, and children which need to be case managed by their mentors, through a combination of handwritten documents and computer files. Mrs. Rogers is in charge of maintaining information about the organization and people involved in CLS. Currently, the organization uses QuickBooks to manage its finances. It does not have an information system to manage its data nor does information flow electronically through the staff.

### **Opportunity #1: Increase utilization of all hardware and software**

#### Description:

Because CLS networks with numerous churches, community groups, and individuals, it was critical that all the technology systems, both hardware and software, within the office be used effectively to fulfill the overall mission. Some of their computers were donated which contain software installed that Mrs. Rogers, the CP, did not know what to do with. Given the loss of support staff, there was a need to delete files and programs as well as use systems such as Microsoft Access in order to accomplish the general work needed to carry out its mission. The consulting task was to go through all the computers, evaluate the current state, and clean out unnecessary files and programs.

#### Approach:

- The consultant evaluated the current state of the computers and found out how much free space there was to install new programs.
- The consultant with the CP installed Access in order to work on the second consulting task.
- CP and consultant removed unnecessary software and installed needed software.
- CP and consultant backed up important files onto disks
- CP and consultant created desktop shortcuts to easily find programs and folders
- CP and consultant installed needed hardware components

#### Anticipated Impacts:

##### *Organization:*

CLS will be able to run more smoothly since computers are up and running with the necessary components.

##### *Technical Environment:*

CP will be able to install software upgrades to keep current with the latest technology. This includes software packages such as Microsoft Office XP and operating systems such as Windows XP.

##### *Technology Management:*

CP will know exactly what is in her computer and where everything is. Computers will be working properly and fully functional.

##### *Information Management:*

CP will know where files are that she needs and how they are used as well as organizing them in a consistent manner so they are easier to manage.

## **Opportunity #2: Improve Data Management**

### Description:

Christian Life Skills (CLS) did not have a way to manage all its data, which included information about mentors, youth, churches, organizations, agencies, board members, volunteers, media contacts, and donors. Data was on a combination of paper and computer. In order to work effectively with youth and families to fulfill its mission, CLS must be able to communicate with a multi-system approach through churches, organizations, affiliated agencies and family units. The consulting task was to develop a database using Microsoft Access to improve data organization.

### Approach:

- CP created an outline on what was to be put into the database. This was organized by different groups (e.g. mentors, youth, churches, etc) and a list of tasks relating to what information should be extracted for certain goals (e.g. mailing lists).
- The consultant together with the CP designed, developed and implemented the database
- The consultant showed the CP how to enter data so she could demonstrate to others
- The consultant showed the CP how to create queries and reports
- The consultant and CP tested the database
- The consultant and CP made additional adjustments as necessary

### Anticipated Impacts:

#### *Organization:*

The CP will be able to communicate information and updates on CLS to donors and the Board of Directors by creating reports.

#### *Internal & External Communications:*

Communication will be more effective and improved since data is better organized. Since all contact information is organized, CLS will be able to e-mail youth and mentors about upcoming programs and keep them updated and fulfilling life skills.

#### *Information Management:*

Information will be kept in a central location making information easier to find. Also, all data will be transferred to computers instead of paper.

## **Part II: Outcomes and Recommendations**

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### **Major Consulting Task #1: Increase utilization of all hardware and software**

The consulting task was to go through all the computers, evaluate the current state, and clean out unnecessary files and programs. There were files left by previous staff that Mrs. Rogers wanted to evaluate for their future usefulness to CLS or discard them.

#### **Outcome 1: Installing new software and programs**

Mrs. Rogers now knows how to check for the amount of free space in her computer by going through "My Computer." Making sure there was enough space to install programs, Mrs. Rogers was able to install an upgrade for Microsoft Office 97 and Acrobat Reader. She was able to locate the directory where computer programs are installed. She can use the step by step installation wizard and understand the difference between custom and typical installation.

**Outcome 2: Creating desktop shortcuts to frequently used programs and folders**

Because, Mrs. Rogers did not know how to navigate through her computer she did not know where all her files and downloads were kept. Together with the consultant, she found two directories where files were being stored and created shortcuts to the desktop for each directory.

**Outcome 3: Backing up important documents onto disks**

Mrs. Rogers needed to back up files in case the original files became deleted or corrupted. Thus, by the drag and drop method, she was able to bring desired folders onto floppy disks. Also, she can open up the floppy disk and view files by using “My Computer”.

*Sustainability*

Sustainability will be achieved by continuously practicing these methods. She is able to achieve these outcomes without the assistance of the consultant. A help sheet, seen in Appendix A, was also given to Mrs. Rogers to remind her of how to do these tasks.

*Expanded Capacity*

As a result of achieving these outcomes, Mrs. Rogers can now save time trying to find files, such as funding information and proposals, which she needs to do the necessary work. Also, by keeping files on removable disks she can easily transport documents from the office and home so she can work conveniently and in turn more efficiently. Mrs. Rogers would feel more comfortable installing or deleting programs from the computers. General use of the computer is improved which expands Mrs. Rogers’ technical capabilities and organization. CLS would be able to run more smoothly since computers are up and running with the necessary components.

**Recommendation**

Now that Mrs. Rogers can back up files on floppy disks, she might consider expanding her back up system. She should implement a better system to back up CLS’s computer files. Currently, one computer has a 100 MB zip drive and two other computers have 1.44 MB floppy drives.

**Rationale**

The current setup can provide an inconvenience for transferring files from one computer to another if one computer can only support floppy disks or files are too large. It is particularly useful to back up their Access database which will increase in size as more information is added and new features are implemented. By also using a zip drive, files can be kept on one disk and easily transferred from one computer to another so others can conveniently look at files needed to further CLS’s mission.

**Resources:**

The consultant would recommend purchasing an external zip drive so that it can be moved easily from one computer to another. Zip disks would also need to be purchased to use with the zip drive. Installation should be as simple as connecting the zip drive and installing its software. Once the zip drive is connected, it will be easy to use since it is very similar to storing files on a floppy disk.

All the hardware can be purchased at any computer store such as CompUSA or online through amazon.com or Best Buy. Below are a few links to zip drives and disks on Best Buy:

- The following is a link to a USB port zip drive. A 100 MB capacity should be sufficient since that is what the current computer with a zip drive is.

Iomega 100MB USB-Powered Zip Drive

<http://www.bestbuy.com/Detail.asp?m=488&cat=511&scat=513&e=11080091>

- Zip disks are needed to use the zip drive. Below is an example of a zip disk for a reasonable price.

Fuji Zip Disks (2-pack)

<http://www.bestbuy.com/Detail.asp?m=488&cat=516&scat=518&e=11008549>

## **Major Consulting Task #2: Improve Data Management**

A database was created to organize all of CLS's information such as mentors, pastors, churches, and donors

### **Outcome 1: Building foundation for database and entering data**

Mrs. Rogers initially brainstormed a list of data needed to store into the database. This included information about donors, mentors, pastors, churches, volunteers, mentees or youth participating in the programs, board of directors, and friends of CLS. Mrs. Rogers, along with the consultant, used the Table Wizard in Microsoft Access to create tables. Using the list, tables were created for each group of people, along with a list of attributes. The initial list was also broken down such that there was not any redundant information. For example, there was a table for everyone involved in CLS, their contact information (e.g. address, phone number, etc), and what parts of CLS they were involved in. For example, a person could be characterized as a donor and a volunteer. Another table was then created containing a list of donor identification numbers, the date of donation, and amount of donation since each donor could make more than one donation but only had one way to be contacted. The data relationship diagram can be seen in Appendix C. Mrs. Rogers was also able to edit the database. She can delete and add rows, change data types, and sort the tables alphabetically.

### **Outcome 2: Improve external communications**

After creating tables and entering information into the database, the consultant and Mrs. Rogers were able to create queries using the Query Wizard in Microsoft Access. A query was created to extract all the donors, their mailing addresses, amount of donation, and those donors who have or have not been acknowledged through thank you notes using a Yes/No data type. From this, mailing labels were created as well as a computer generated thank you letter using Microsoft Word Mail Merge. Letters and labels were created only to those donors who have not yet been acknowledged. A sample letter can be seen in Appendix B. This was a substantial step to improve efficient external communications and strengthen CLS's relationships with donors.

### **Outcome 3: Information kept in a central location**

Before starting this project, all of CLS's information was kept through a combination of a filing cabinet system, Mrs. Rogers' planner, and a few computer documents. Now, all the information is better organized such that Mrs. Rogers can simply look up a phone number or volunteer information through the database.

### *Sustainability*

After developing the database, Mrs. Rogers has been able to modify design changes and enter data. She has entered over fifty entries into the database. So, as long as Mrs. Rogers continually uses the database, these outcomes will be sustainable towards efficient communication. She has grasped the concepts of manipulating and editing the database, such as entering new fields, without the help of the consultant. The groundwork for all the aspects and different people in

CLS has been established. A help sheet, seen in Appendix A, was also created to remind Mrs. Rogers of how to use the wizards, manipulate columns, change data types, and create mass mailings.

#### *Expanded capacity*

As a result of achieving these outcomes, the Mrs. Rogers will be able to contact the necessary people to carry out the mission of CLS. The database will be able to create mailing lists, both through e-mail and postal, to communicate quickly to all the people she works with. Mrs. Rogers can start making new letters to promptly send out to the CLS community announcing new activities, upcoming events and training sessions. She can use the database for mass mailing by creating labels and letters which will be more efficient than writing addresses by hand.

CLS can easily reach others, which will allow various churches and community groups to network in order to make referrals and other forms of support so that families and youth will have access to resources and experiences that will enable them to live spiritually healthy and productive lives. As a result, organizing its data will allow more communication that will in turn create better relationships within CLS in carrying out its mission.

Mrs. Rogers can also start expanding the database to include more information about the people involved in CLS and new queries that will be useful for creating reports to the Board of Directors. There is also the possibility of moving the database from one computer to an online network so that authorized users may enter and view information, making data entry more efficient.

#### **Recommendation**

The recommendation is to purchase an upgrade for Microsoft Office to keep up to date with current technology. Currently there are more advanced versions of Office such as Office 2000 and XP. And since Mrs. Rogers can install software she should be comfortable purchasing and installing an upgrade.

#### **Rationale**

Currently, all of CLS's computers have been donated by churches and other organizations. Thus, the computers are already used and a few years old. Upgrading from Office 97 to XP would increase CLS's use of technology. Using a newer version of Office will allow CLS to be more compatible with more modern computers as well as taking advantage of new features. For example, if the database was brought from Office 97 to a later version, the database would either have to be converted such that it would not be able run in Office 97 again or the design changes could not be made in a newer version.

#### **Resources**

Upgrades for Microsoft purchases can be found at any computer store and online sites such as CompUSA, BestBuy, and techsoup.org. They can also be purchased directly from Microsoft. When purchasing, the upgrade should be Microsoft Office XP: Professional Edition. The Professional Edition includes Access whereas the Small Business, or Standard, version does not.

- The following are a few links to Microsoft Office upgrades:  
Microsoft Office XP Professional Edition  
<http://shop.microsoft.com/Referral/Productinfo.asp?siteID=10869>

Other resources can be found at techsoup.org which is constantly being updated:



<http://www.techsoup.org/DiscounTech/category.asp?catalog%5Fname=TechSoupMain&category%5Fname=Office+Tools+MS&Page=1&Cat1=Microsoft&CatCount=1>

It should be noted that only one order of Microsoft products can be placed through techsoup.org every two years.

## **Other Recommendations**

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### **Recommendation #1:**

Christian Life Skills needs to implement a consistent and stable system in order to share files outside the administrative office. Thus, they should look into networking options to be used by the administrative office, Mrs. Rogers, and the Board of Directors. One suggestion is to purchase an “intranet” system such that all files would be stored on an external site for Mrs. Rogers and authorized users to access.

#### **Source**

Currently, the database that has been implemented resides on one computer at CLS’s administrative office. Thus, it is inconvenient for some users who would like to use it to come to the office. The recommendation is to purchase and set up an intranet network so that the database as well as other files can be easily accessed by others, particularly the Board of Directors. This recommendation will increase the use of technology at CLS and allow Mrs. Rogers to become more familiar with products and technology that can fulfill its mission.

#### **Rationale**

Mrs. Rogers has expressed the desire to be able to share information such as financial data and files to her Board of Directors. By creating a central location for all files, there would not be a need to transfer disks from one computer to another and risk files being changed in two different locations or getting lost.

#### **Resources**

Below are links to sources (Intranets.com) for establishing an intranet network:

- Description of the features the intranet can offer such as an online calendar, program manager, and e-mail accounts:  
<http://www.intranets.com/ProductInfo/?l=h>
- Pricing for Non-Profit Organizations:  
<http://www.intranets.com/ProductInfo/Pricing/NonProfit.asp>

Intranets.com also provides a 30-day free trial so Mrs. Rogers can see if this is something that is comfortable and workable for her organization.

### **Recommendation #2<sup>1</sup>:**

Christian Life Skills needs to provide a technology plan for the next few years, devoting a certain percentage of raised funds for new hardware, DSL, software, and courses. With a focused technology plan, CLS can provide itself with a great level of self sufficiency and better utilize and develop the skills that have been jointly worked on. Mrs. Rogers who has the most skills in using the office technology would tend to the management of the technology plan and acquisitions.

**Source**

Christian Life Skills has traditionally obtained all its major technology through donations. Because of this, much of their equipment was obtained without any major plan and had not been organized or maintained since their reception. A technology manager position was never instituted and upkeep is nonexistent. This recommendation will help solve this problem while satisfying the technology management and planning benchmark. Future technology will be bought in a planned manner and utilized more effectively.

**Rationale**

By developing a set of goals for future technology acquisition and providing funds for it, CLS can prevent itself from having its technology run down. Some aspects to consider in a technology plan would be implementing DSL and purchasing software upgrades for Microsoft Windows and Microsoft Office. Also purchasing upgrades sometimes requires a hardware upgrade such as in RAM or memory.

With better machines and a faster connection, e-mail could be used without enormous download times and web surfing would be greatly sped up increasing the ability to find potential mentors, people in need of mentoring, or grant organizations. Additionally, Internet usage is crucial to Mrs. Rogers for being able to troubleshoot technology problems in the future and expand her general technical knowledge.

With faster machines and newer software, CLS will be able to receive more return from their technology, build confidence and become comfortable in using new software and machines, and provide a level of self-sufficiency as they will be able to surf for knowledge or take computer courses as needed. A technology plan will allow Mrs. Rogers to become aware of new technologies and think ahead for how technology will be used in the future for CLS.

**Resources**

The primary resource needed for this plan is money, followed by technology planning. By promising some percentage of future grants to technology upkeep, CLS can prevent its computers, software, or technical skills from remaining stagnant or diminishing.

Technology planning will be in the hands of Mrs. Rogers. Her efforts could be greatly helped by self-initiative (searching the web or tech magazines) or through technical courses. Also, signing up for another student consultant who could implement a technology plan next semester could prove to be very beneficial as well as cost effective.

Some very good resources available on the web include the following:

- The following website has a step by step process explaining how to create a technology plan. It is very easy to understand and thorough. The right frame of the page includes a list of other valuable articles describing how to diagnose the current technology situation: <http://www.techsoup.org/articles.cfm?topicid=11&topic=Technology%20Planning&cg=content&sg=mainTechplan>.
- In the future, in order to save money to execute the technology plan it may be useful to do things in house rather than hire a consultant. The below link provides a series of valuable articles discussing how to do various tasks on the computer for different software packages: <http://www.tech-library.org/howto.html>



<sup>1</sup> This recommendation is based upon a recommendation given by Ersin Civanlar, the student consultant who worked with Mrs. Rogers last year. His report can be found at:  
<http://www.andrew.cmu.edu/course/15391/PreviousPartnerships/ConsultingReportsArchive/civanlar-christianskills.pdf>

**About the Consultant**

Nancy Chen is currently a junior majoring in computer science and minoring in business administration at Carnegie Mellon University. In the future, she hopes to apply her technical skills in many different areas including database applications, software testing, and web development.

# Appendix A

## Computer Help Sheet

### ***General Computer Tasks***

#### Check amount of free space

1. Double click on the “My Computer” desktop icon
2. Click on “C: drive”
3. The “pie” should be seen on the left. It can also be seen by right clicking on “C: drive” and selecting “Properties.”

#### Desktop Shortcut

1. Click on the file or folder you want to create a shortcut.
2. Right Click and select “Create Shortcut.” An icon should then appear labeled “Shortcut to...”
3. Drag the “Shortcut to...” icon to the desktop.

#### Transporting files on disk

1. Insert floppy disk.
2. Double click on the “My Computer” desktop icon
3. Click on “A: drive”
4. Open up the “My Documents” folder (or wherever the files you want to put on disk are located).
5. Drag the desired files into the “A: drive” window. The files should then be on the floppy disk.

#### Removing files

1. First locate where the file(s) to be deleted are.
2. Select the file(s) and hit “Delete.”
3. It will ask if you would like to put this file in the Recycle Bin. Select “Yes.”
4. To completely delete the file, double-click on Recycle Bin (located on the Desktop).
5. Go to “File” and select “Empty Recycle Bin”
6. To restore or delete only one file in the Recycle Bin, right-click on the desired file and select the appropriate response.

\* Note: To permanently delete files (skipping the Recycle Bin part), select the file and enter “Shift + Delete”

#### Removing programs

1. Go to “Start” -> “Settings” -> “Control Panel”
2. Double click on “Add/Remove Programs”
3. Under “Change/Remove Programs” there is a listing of all the programs installed.
4. Click on the program to be removed and select “Change/Remove”
5. It will ask you to make sure this is the program to be removed. Select “Yes” for the program to be removed.

#### Printing in Landscape (sideways)

1. Go to “File”
2. Go to “Print”
3. Click on “Properties”
4. In the “Features” tab, under Orientation select “Landscape”
5. Click “OK”

### Compress/ "Zip" a file

1. Right click on the folder/file(s) to be zipped
2. Select WinZip -> Add to "filename.zip"
3. A zip file with the file name in Step 2 should appear in the folder where the files to be zipped are located.

### Decompress/ "Unzip" a file

1. Right click on the zip file to be unzipped.
2. Select WinZip -> Extract to here\*
3. The files in the zip file should be seen in the same folder as the zip file.  
\*You can also choose the appropriate option to extract the files to another location.

### ***Microsoft Access***

#### Creating a table

1. In the Tables section, select "New"
2. Use the Wizard option. A list of sample attributes should be seen.
3. ">" selects the highlighted attribute to the new table.
4. ">>" moves all the attributes to the new table.
5. "<" removes the highlighted attribute to the table.
6. "<<" removes all the attributes to the table.
7. To rename an attribute, highlight the attribute and select "Rename" on the bottom.

#### To edit an existing entry (so that the whole entry does not delete)

1. Select the box of the entry.
2. Press F2. The cursor should appear in the box for you to edit.

#### Insert/Delete Column

1. Highlight the table you want to change
2. Select "Design." A window should pop up listing the fields and data types.
3. Select the position by pressing the gray box on the left where you want to insert or delete the row.
4. Right click and select either "Insert" or "Delete" row.

#### To Change the Data Type (ie. Text, Yes/No, Date)

1. Highlight the table you want to change
2. Select "Design." A window should popup listing the fields and data types.
3. Go to the attribute you want to change.
4. Click on its right column. A pull down menu should appear when you click the arrow.
5. Select the desired data type.

#### Alphabetize a list

1. Click on the gray box on top of the column you want to alphabetize
2. Right Click and select "Sort"
3. Select "Sort Ascending" to alphabetize the list.

#### *Printing Labels/Letters using Microsoft Word 97 Mail Merge*

1. In Access, select the table or query to export.
2. Right click and select "Save As/Export" -> "Save to external file..."
3. Select the directory to save the data file.

4. Under "Save as Type", pull down the menu and select "Microsoft Excel 97"
5. Click "Export"
6. Open up Microsoft Word.
7. Select "Tools" -> "Mail Merge"
  - a. Main Document
    - Create -> Form Letters
    - Edit Letter
    - Go back to Mail Merge
  - b. Data Source
    - Get Data -> Open data source
    - Under "Files of type:", select "All files"
    - Select the Excel file that was exported in step 5
    - Select "OK"
    - Edit Main Document by selecting the appropriate fields from the database into the letter
  - c. Merge
    - Now, all a new document should appear with all the letters for all donors
    - If desired, you can edit individual letters to personalize each one more.
8. The Mail Merge wizard also allows you to create labels. Follow the same steps as part 7 but in step 7b select which type of label (e.g. size) you would like to use.

**Appendix B**  
Sample Mailing Letter

«Title» «Donors\_FirstName» «Donors\_LastName»  
«Address»  
«City», «StateOrProvince» «PostalCode»

Thursday, April 24, 2003

Dear «Donors\_FirstName»,

Thank you for your donation in the amount of «Amount». Your year-to-date giving amounts to «Total\_giving\_YTD».

We are grateful for your willingness to help Christian Life Skills achieve its goal of helping youth and families live healthy productive lives and fulfill their God-given potential. We will try to keep you informed of our work and our progress from time to time.

Thank you again for your kind generosity. May God bless you in all things.

Sincerely yours in Christ's service,

Barbara Rogers,  
Executive Director

# Appendix C

## Data Relationship Diagram

