Do I Trust the Cloud?  
Cloud Computing and Family History

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What is the Cloud?
Technologists have been buzzing about "cloud computing" for several years, yet many genealogists are just beginning to discover how "the cloud" can influence their activities. Simply put, "the cloud" inputs data, programs, and processes into a central location that can be shared by others. Elements of cloud computing include backup and data storage (such as DropBox) and collaborative software solutions (such as GoogleDocs).

Many companies have integrated cloud computing into their standard business practices, including most leading software and hardware providers (including IBM, HP, Cisco, and others). Some genealogists might be hesitant to store and interact with their data within a cloud-based system, as the potential for security and privacy risks might appear to outweigh the benefits of engaging in cloud computing. However, many already interact within a cloud environment through web-based e-mail services (such as Gmail) and social networking resources (such as Facebook, Flickr, and Google+).

Family History and the Cloud
Before examining the benefits of cloud computing for genealogists, it is key to identify factors that make cloud computing a viable solution for the field. While some benefits might be obvious, the potential to revolutionize the way genealogists interact with their data exists within "the cloud."
Consider the following:

1. Collaboration is Key
The process of sharing and collaboration reinforces a more correct and accurate conclusion and is essential to the genealogical process. The ability to analyze and share records, names, and trees has always been a key component to family history.

2. Third-Parties
With time, genealogists have historically become comfortable with sharing their data with others, hosted and/or facilitated by a third-party provider. From online trees to e-mail attachments, genealogists share their data with others.
3. Data Trends
Trends toward electronic publishing will force past and future genealogical materials into digital formats, which will require a central storage system to provide and insure universal access. As the number of digital images and online resources continues to grow, the need for larger, cost effective storage solutions is paramount.

4. Data Consistency
Storing data through an external service greatly decreases the potential for personal "operational failures," while providing the potential to dial back data if errors are introduced. Most genealogists recognize that their own personal computer should not be the only storage location for their genealogical data.

5. Enhanced Security
In reaction to a technological shift towards cloud computing, the industry will react with enhanced security and added benefits to meet user needs. Providers will work with genealogists to ensure their data is secured and protected in order to retain customers.

Benefits of the Cloud
Cloud computing offers a number of benefits for genealogists that can increase productivity and help to ensure their data is suitable and accessible for long-term preservation. Consider the following benefits:

1. Reliability
Due to the increasing demand for cloud-based services, developers constantly strive to build systems that ensure their equipment functions efficiently and properly. Genealogists directly benefit from constant backup, storage, and dependability when using a cloud-based service. In addition, services will also include customer-support options (both in-person and online) to answer questions and troubleshoot any problems that may arise. Because of the nature of cloud computing, users can rest assured that their data is being constantly backed-up by the provider in order to ensure stability.

2. Mobile Access
As genealogists shift towards mobile devices like tablets or iPads, the need to access key data from a variety of devices will grow tremendously. Retrieving family history data from a cloud-based family tree or document storage system will enhance and even accelerate research.
3. Low Cost
The need to continually upgrade and/or replace existing software and hardware can become time consuming and costly. Further, cloud computing providers will work to maintain inexpensive services for consumers in order to retain customers.

4. Constant Innovation
The need for cloud computing providers to differentiate themselves from one another ensures genealogists benefit from new technologies at an accelerated rate. Areas of innovation particularly important to genealogists include data storage, data access, security, and preservation.

5. Future-Proof
Because of its flexibility, cloud computing will always offer its users the latest technologies, avoiding the need for individuals to invest in the "the latest gadget," only to find that its next version will be released in a few days. Combined with the need for constant innovation (see above), cloud computing allows genealogists to become "future-proof."

Potential Drawbacks of the Cloud
Some genealogists might be hesitant to fully embrace "the cloud," for a variety of reasons. As with all technologies, there are some potential drawbacks and risks associated with cloud computing. However, in many cases these drawbacks are minimal and do not necessarily discourage genealogists from using "the cloud."
Consider the following:

1. Security
Entrusting your data to a third-party can leave users vulnerable to security attacks. However, data is also susceptible to security breaches on personal computers and storage devices.

2. Privacy
While cloud computing providers will make every effort to ensure data is kept private, there is also a risk (no matter how small) when sharing data and other sensitive information in an interactive environment.

3. Change
With the need to constantly differentiate their products, cloud computing services will likely change and modify their services over time, which could lead to frustration and the need to learn "something new" on a frequent basis.
4. Accessibility
As all technology has the potential to crash or fail, there is always a remote possibility that loading data into a cloud-based service might result in the inability to access materials for a time, albeit brief. In addition, it is likely that services will require downtime to upgrade and maintain their own equipment, which may result in a lack of, or limited accessibility.

5. Integration Issues
Ensuring that any cloud computing platform used by genealogists engages with existing software programs and file standards might cause problems for users to upload and integrate their data within the cloud structure.

Best Practices
As genealogists, keep the following in mind when engaging with "the cloud" in order to protect your data, yourself, and others:

1. Keep Up-to-Date
Keep a close eye on your cloud-computing provider for any actions you need to complete, such as upgrades, authorizations, etc. to ensure that the provider's offerings continue to meet your needs as a genealogist.

2. Try it First
Try multiple cloud-based solutions to ensure you select a long-term solution for your genealogical data that meets your needs. Consider a dedicate solution for your family history separate from other personal and/or business solutions.

3. Ask Questions
It never hurts to ask companies where data is stored, how it is backed up, and for potential security risks they have identified. Ensure you are satisfied with the answers before storing your data.

4. Set Your Own Security Standards
Develop your own list of key requirements from a cloud-computing service before shopping around. Consider: cost, storage space, accessibility, updates, security, privacy, control, etc.

5. Protect Yourself and Others
Change passwords and other login information to your cloud providers on a regular basis and create unique passwords for accounts. Avoid sharing documents that contain personal information pertaining to living individuals.