Technology:

Shifting the Genealogical Paradigm and Realizing

the Vision Ransom H. Love

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Disclaimer

The views expressed in this presentation are my own personal views and do not necessarily reflect those of the Church of Jesus Christ of Latter-day Saints

Agenda

- 1. The Role of Technology
- 2. The Vision
- 3. From Genealogist to Ordinary Person
- 4. From Data to Experience
- 5. From Cathedral to Marketplace

The Role of Technology

Elder Boyd K. Packer, April 1, 1977

Regional Representatives Seminar

"When the servants of the Lord determine to do as He commands, we move ahead. As we proceed, we are joined at the crossroads by those who have been prepared to help us. They come with skills and abilities precisely suited to our needs. And, we find provisions; information, inventions, help of various kinds, set along the way waiting for us to take them up. It is though someone knew we would be traveling that way. We see the invisible hand of the Almighty providing for us. For instance, inventions in the fields of travel and communication have come along just as we were ready for them...The airplane did not come as an accidental discovery...Revelation was involved. It came precisely when we could use it to move across the world to restore the Gospel...When we are ready, there will be revealed whatever we need—we will find it waiting at the crossroads."

The Vision

President Wilford Woodruff – April 6, 1893

Salt Lake Temple Dedicatory Prayer

"And, as Thou has inclined the hearts of so many who have not yet entered into covenant with Thee to search out their progenitors, and in so doing they have traced the ancestry of many of Thy Saints, we pray that Thou wilt increase this desire in their bosoms, that they may in this way aid in the accomplishment of Thy work. Bless them, we pray Thee, in their labors, that they may not fall into errors in preparing their genealogies; and furthermore, we ask Thee to open before them new avenues of information, and place in their hands the records of the past, that their work may not only be correct but complete also." (April 6, 1893)

- "New avenues of information"
 - Internet
 - Digital indices and records
- "Place in their hands the records of past"
 - Broad Internet access
 - Digitization and publishing tools
- "Not only be correct but complete"
 - Search engines and research tools
 - Collaboration tools
 - Standards

Archibald F. Bennet, December 20, 1947

Secretary Genealogical Society of Utah

"A universal system of intelligent cooperation will bring together on one record sheet every fact in existence regarding a particular family. This wealth of data will insure accuracy and banish error. Expensive and time-consuming duplications in research and repetitions in ordinances will be eliminated. No sooner will a new fact be uncovered in any part of the world by a researcher than it will be communicated to the Archives center and be assigned to its proper place, on some family record."

- "A universal system of intelligent cooperation"
 - Centralized Lineage Linked Database
- "Expensive and time-consuming duplications in research and ordinances will be eliminated"
 - Internet access, publishing tools
 - Broad access to data sources
 - Standards on data formats and tools
 - Centralized ordinance database
- "No sooner will a new fact be uncovered in any part of the world...it will be communicated..and assigned to its proper place on some family record."
 - Global access to Internet
 - Centralized Lineage Linked Database

Elder Boyd K. Packer, November 18, 1975

Genealogical Department Meeting

"We intend to streamline and simplify genealogical research and record clearance, to fit the needs and circumstances of the average member of the Church, rather than to accommodate the genealogical specialist."

- "Streamline and simplify genealogical research and record clearance, to fit the needs ... of the average member"
 - Broad Internet access
 - -Broad availability of indexed records
 - Enhanced scanning and indexing tools
 - Research tools that analyze personal data and direct and analyze records and information to find a match

Elder Theodore Burton, October 11, 1976 Long-Range Goals for Genealogy

"I don't think the present type of individual records is the type of record conforming to the "generations of Adam" spoken of in the scriptures. There is no welding together of generations in that type of temple record and I seriously doubt that such a record would be regarded as an offering "worthy of all acceptation."

"Up to the present we have not been able to put such a family record of ordinances together. We have lacked both the technique and the equipment to accomplish so great a task. Now, however, technology has developed to such a state of the art that the building of just such a family record has become theoretically possible. To prepare such a record will require further study and research. We now need to begin to devote time, money, and effort into learning how to construct such a genealogical record of Church families sealed together in proper order by generations."

- "There is no welding together of generations in that type of temple record."
 - Centralized Lineage Linked
 Ordinance Database
- "A genealogical record of Church families sealed together in proper order by generations."
 - Centralized Lineage Linked Database
 - Centralized Lineage Linked
 Ordinance Database

Elder Boyd K. Packer, April 1, 1977

Regional Representatives Seminar

"Perhaps the most significant of all long-range goals, when achieved, will place the decisions on ordinance work for the dead into the hands of the local Church leaders, the way it is for the living...When guidelines have been prepared, these decisions will all be made locally. To do that members will need, first, to identify a deceased person. Some simple criteria much less complicated than the ones we presently use are now being developed. They will need to know if the ordinance work has already been **done**. Here the Genealogical Department will offer a service. If we can confirm an airplane reservation or register telephone calls anywhere in the world at a moment's notice, we can clear names for the temple ordinance work instantly. It may take some time to get equipped to do that, but do it we will!"

Elder Boyd K. Packer, April 1, 1977

Regional Representatives Seminar

"Another most important development contemplated in the long-range goals provides for **genealogical and temple** work to be recorded in family files which will facilitate access by surname. Eventually those beginning genealogical research can, with proper compensation, receive a computer print out of all work done on their family lines.

There will be a family organization registry. One can check and know whether other branches of the family are devoting time and money to genealogical research; and thus eliminate the present wasteful duplication. The process of extracting names from microfilms and processing them for temple ordinance work, now done solely by Church employees—may soon be done on a volunteer basis."

- "Place the decisions on ordinance work for the dead into the hands of the local Church leaders"
 - Centralized ordinance database with distributed rights and monitoring tools
- "To identify a deceased person. Some simple criteria much less complicated than the ones we presently use"
 - Broad availability and access to indices
 - Sophisticated search engines
 - Automated research tools

- "Need to know if the ordinance work has already been done"
 - Distributed access to ordinance database
- "We can clear names for the temple ordinance work instantly"
 - All temples linked to centralized ordinance database
 - Integrated database containing personal family history data and temple ordinance
- "Genealogical and temple work to be recorded in family files which will facilitate access by surname"
 - Centralized lineage linked database

- "There will be a family organization registry. One can check and know whether other branches of the family are devoting time and money to genealogical research"
 - Centralized lineage linked database
 - Collaborative tools
- "Process of extracting names from microfilms and processing them...may soon be done on a volunteer basis."
 - Internet based workflow tool
 - Collaborative tools
 - Community network

From Genealogist to Ordinary Man

The Real Commercial and Community

Opportunity is Moving to the Mass Market

Genealogists

- Currently selling to genealogist and enthusiasts
 - Enthusiasts want access to original records
 - Enthusiast market segment is growing slowly but much slower than other segments
 - Love the joy of the search as a hobby
 - Given that the number of enthusiasts is limited, the data has a shelf life and must constantly be turned

Ordinary Person

- Real opportunity is the mass market
 - Over 60% of the adult population want to be involved in Family History
 - Have little or no interest in original records, localities and jurisdictions, genealogical research or computer skills
 - Have little time
 - Need to have a quick success in a format that they understand
 - Want to find an ancestor and information about them
 - Do not want to find out they are doing redundant work
 - Want to be personally guided at the level that they need
 - Want to be able to associate and link rich media types like photos, video, audio to family history efforts
 - Want to work together with others
 - Need to share
 - Need for personalized help

From Data to Experience

The ordinary person is not interested in research or technology. They need an experience!

The Commoditization of Data

- Google is making vast amounts of data available for free to sell advertising
- Governments are spending millions of dollars to make their records available to the public for a small fee for original certificate
- Commercial online companies are making indices available for free and charging for either images or printing of original certificates
- Church will make its lineage linked data and indices and images available for free
- Commoditization can be very good if it does not erode investment incentive

Technology / Economic Drivers

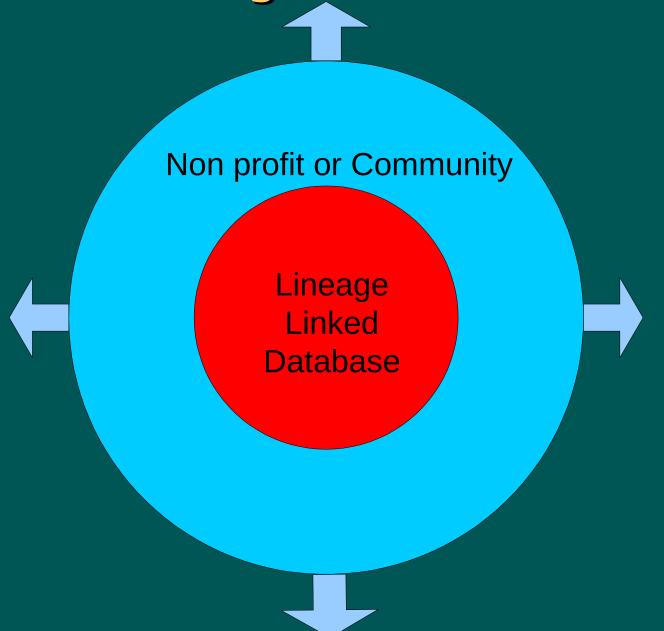
Technology Capability Digital Image Cellular Phones **Facial** Recognition \$/Cost People/Skills

Application of Technology

Quickest Path to Success

- Lineage linked data is
 - The link between living memory and their ancestors
 - Best compiled through human collaboration
 - Contribution of every one's individual records in a shared database
 - Need to remove the cost and expense of duplication in research
 - Need to facilitate collaboration on individual lines to ensure accuracy
 - Computers can assist in matching but human expertise is still required
 - Best provided by non-profit or community effort
 - A segment of the market will not want to contribute their efforts for others to benefit from commercially
 - Subscriptions and membership fees can exclude participation
 - Ideal for creating an experience because it links individuals with time, location and events
- The "experience" is best provided by commercial entities

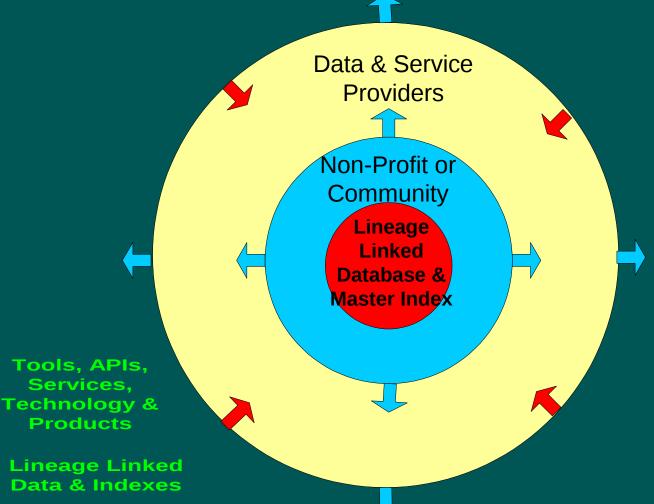
Shared Lineage Linked Database



Need for Online Data

- Need basic information to identify a unique individual and link them to a family to be easily available
 - To lower costs, this information is best provided by non-profit or community efforts
 - Imagine the World-Wide Web if you had to pay for HTTP, HTML and basic tools
- Indices free with access to images or original certificates for a fee on primary records (Census, vital, family histories, etc.)
 - Enables general populous to have a success and then are willing to buy on impulse
 - Enables general populous to get 'hooked' and move into subscription or services model
 - Public data provides leads back to commercial entities who provide richer services and data sets
- Other records can still be offered through traditional subscription or pay per view
 - Newspapers
 - Probate: Deed, wills, etc.
 - Historical and period data

Evolving Commercial Opportunity



Need for Online Data

- Must preserve some economic incentive to fuel increased digitization of data sources and shift to services
- Non-profit or community can offset costs to digitize through:
 - Enhanced scanning technologies
 - Internet volunteer tools

Scanning Technologies

- Dramatically reduce the cost per image
- Primary cost in scanning is still human
- Must provide for unattended scanning
 - One operator handle up to 3 to 4 scanners
- Automate editing process

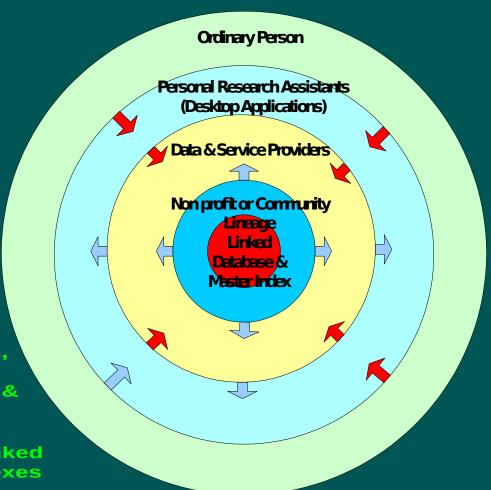
Internet Indexing

- Lower costs to index by facilitating the broad use of volunteers without specific skills
- Automate the workflow to ensure accuracy and efficiency
- Utilize global language skills and resources to better ensure accuracy
- Help establish data standards for easy exchange of data

Evolution of Client

- Must make genealogical research easier
 - Utilize technology to remove genealogical complexity
- Transition existing record manager into a personal research assistant
- Analyze data and provide guidance on where to look
 - Automatically provide search criteria
 - Analyze information found
 - Help find others working on the same line

Evolving Commercial Opportunity





Tools, APIs, Services, Technology & Products



Lineage Linked Data & Indexes

The New Business Opportunity:

From Data to Experience
Enthusiast – Ordinary Man Niche market **Enjoys the search**

- Mass market Wants a quick success

Subscription to large databases of original records

Facilitated by Community

Rich services that utilize data to provide an experience

Basic information to identify &link families available for little or no cost. Pay-per-view access to records & subscription to special record sets

Real Opportunity is the Experience

Personal Research Assistant

Collaborative Services

Linked-In
Living records
Coordinated
reunions

Community
Lineage
Linked Database
& Master

Index

General Services

Who are you related to
This day in time
This day in the life of an ancestor
Advertising: Travel tips
& video tours
Hosting personal
information
Photos

Data Services

Print pedigree charts
Maps
Historical data
Original images & certificates
Rich media

From Cathedral to Marketplace

Need to Solve Problems
Together While
Preserving Economic
Value

Cathedral – The Temptation



Total Control

- Single company or entity tries to do it all themselves because:
 - Easier to manage
 - Easier to build
 - Much more control over what is built
 - Reaps the majority of the rewards
- But has many downsides
 - Never gets completed misses market opportunity
 - If completed serves a limited set of people

Bazaar - Open Source



Little or No Control

- Participation by all:
 - Fosters creativity
 - Enables collaboration
 - Reduces development costs on infrastructure
 - Fosters standards
- But has many downsides
 - Erodes most economic value
 - Little overall direction or roadmap
 - Very little control

Marketplace - The Alternative



Some Control

- Collaborative rather than open source through non-profit:
 - Source code freely available
 - Maintains ownership
 - Provides a roadmap
 - Provides stimulation
 - Prevents misuse
- Free Software Foundation
- Maintains value while stimulates collaboration

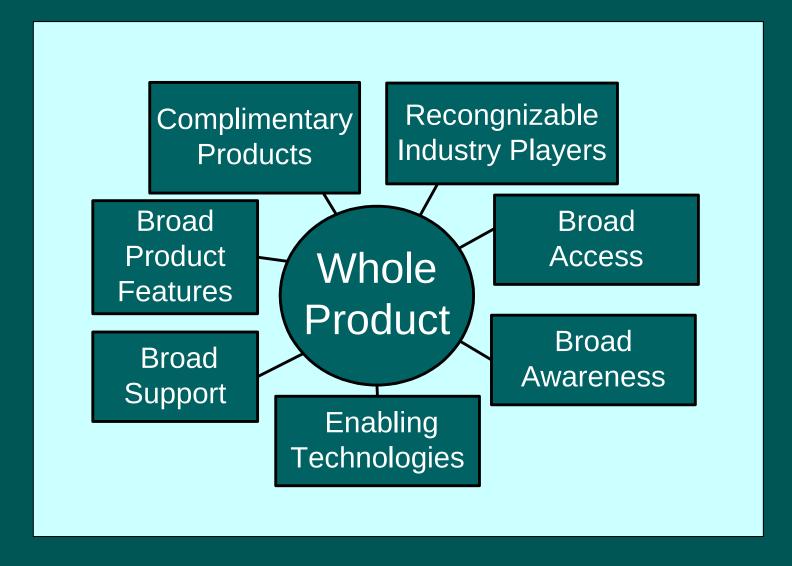
Shared Technology and Standards

- Collaborate on hard infrastructure problems:
 - Search and match
 - Locality and naming authorities
 - Digitization and transcription tools
 - Digital preservation
- Establish standards and certification in key areas
 - Data exchange and synchronization
 - Linking of data
 - Data and media formats for publishing and preservation

Community

- Clearinghouse of:
 - Volunteers
 - Skilled services
 - Personal resources
 - Compatible products
- Can stimulate new and innovative products and services
- Can encourage investment from philanthropists
- Public service campaigns

Marketplace Best Path to Mass Market



Summary

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What the Church Would Like

- Common Pedigree Provide the repository for the world's linage linked data to provide context and structure for the ordinary person to find their ancestors and for the ordinary member to be able to perform temple ordinance work for their dead without cost
- Records and information Provide enough information from records and histories to enable the ordinary person to identify a unique individual and link them to a family without cost
- All other information, images and services can be offered by commercial entities, governments or historical societies for a fee if provided at an economically feasible price