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Corporate Archives in Silicon Valley: Building and Surviving Amid Constant Change

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Corporate Archives in Silicon Valley: Building and Surviving Amid Constant Change

Paula Jabloner
Anna Mancini

ABSTRACT

An historical understanding of the phenomenon that is Silicon Valley requires the collection and preservation of original records. With the rapid pace of change in the technology industry, how can archivists and their institutions preserve this corporate history? Two archivists address how they were able to found an archives at Cisco Systems and maintain another at Hewlett-Packard. Two common elements emerged: 1) the formation of a licensed limited company (LLC) as the legal structure for the archival repository, and 2) the use of outsourcing to staff both repositories. Outsourcing via a non-profit, in this case the Computer History Museum, or a for-profit archival service provider offers archival and exhibit expertise, scalability, and flexibility, all of which are instrumental for technology companies. With Silicon Valley's headlong rush toward the future and its extensive use of contractors we believe these case studies will provide a partial mechanism for preserving Silicon Valley history.

Silicon Valley

The term "Silicon Valley" was coined in 1971 by a *Microelectronic News* journalist to reflect the southern portion of the San Francisco Bay Area which at that time was rapidly being populated with semiconductor manufacturers.¹ Semiconductors were the "brains" of computers, and "Silicon" was the major component of semiconductors. Historian Leslie Berlin provides a good explanation of the region in her book *Troublemakers: Silicon Valley's Coming of Age*.

Between 1969 and 1976, the narrow peninsula south of San Francisco was the site of the most significant and diverse burst of technological innovation of the past 150 years. In the space of thirty-five miles and seven years, innovators developed the microprocessor, the personal computer, and recombinant DNA. Entrepreneurs founded Apple, Atari, Genentech, and the pioneering venture capital firms Sequoia Capital and Kleiner, Perkins Caufield and Byers. Five major industries were born: personal computing,

video games, advanced semiconductor logic, modern venture capital, and biotechnology. In the same remarkable period, a laboratory at Stanford Research Institute received the first transmission of data from the Arpanet, the precursor to the Internet.²

In recent years, “Silicon Valley” has become shorthand for the explosion of new technology companies throughout the San Francisco Bay Area from Santa Rosa in the north to Santa Cruz in the south—and the resulting soaring profits. Crunchbase lists over 3,000 startup companies currently located in Silicon Valley that have an average founding date of 2011.³ Forty-eight years ago, no one would have suspected that today the term “Silicon Valley” would be synonymous not only with a geographic region but with a business startup culture that is nimble, fast moving, and professes to never look backward.

At the same time, some of the larger and more established Silicon Valley companies are attempting to keep up with this explosion of startups by engaging in mergers, acquisitions, spinoffs, splits, restructuring, cost-cutting and layoffs. Unable to grow technology within their organizations fast enough to compete with the startups, companies are acquiring technology through mergers and acquisitions, and getting smaller by spinning off divisions into separate companies, sometimes selling them off.

“What’s going on is a new phenomenon, in my opinion,” said Ed Batts, global chairman of mergers, acquisitions and private equity at the law firm of Orrick, Herrington & Sutcliffe. “The companies that are left are maturing, their margins are eroding, and that’s causing them to look at how to grow their businesses and do something they can’t do organically.”⁴

For corporate archivists in Silicon Valley, the result of all this merger and acquisition activity has been organizational chaos, budget cuts, layoffs, and pressure to divest collections. Assuming the accelerated pace of change for technology businesses will continue and eventually expand to businesses outside of Silicon Valley—and outside of technology—what can Silicon Valley corporate archivists hope to accomplish in the current business environment? Without a strong interest in history from companies that profess to only want to look forward, how can archivists preserve technology history now?

1. “Who Named Silicon Valley?” Computer History Museum, January 7, 2015, <https://www.computerhistory.org/atchm/who-named-silicon-valley/> (accessed September 30, 2019).
2. Leslie Berlin, *Troublemakers: Silicon Valley’s Coming of Age* (New York: Simon & Schuster, 2017) xii.
3. “Silicon Valley Startups,” Crunchbase, <https://www.crunchbase.com/hub/silicon-valley-startups#section-overview> (accessed September 30, 2019).
4. Rex Crum, “Let’s Make a Deal: SV150 Firms Spent \$41 Billion on Acquisitions in 2016,” *San Jose Mercury News*, May 1, 2017, <https://www.siliconvalley.com/2017/05/01/lets-make-a-deal-acquisitions-were-all-over-the-sv150-in-2016/> (accessed September 30, 2019).

In October 2019, the authors searched the *Journal of Western Archives* and the *American Archivist* for any references to technology or Silicon Valley and business or corporate archives. No articles materially documenting Silicon Valley business history archives were retrieved.⁵ We found that many technology company collections exist at repositories where they were placed once companies were acquired, close to failure, or failed.⁶ But what about companies that are still in business, or companies that have never had an archives? How do we establish or maintain working archives for those companies in the cauldron of change that is Silicon Valley?

This article will address how two corporate archivists have been able to start or maintain a corporate archives at Cisco and Hewlett-Packard in the current business environment of Silicon Valley. Through our experiences as demonstrated in the following two case studies, we propose solutions by using these strategies: 1) Holding the archives outside of a company in a dedicated repository connected to but separate from the corporate hierarchy, such as a licensed limited company (LLC), and 2) Operating the archives with professional archivists who are not employees of the company—in other words, outsourcing.

Case Study 1: Founding the Center for Cisco Heritage

Background

Two technologists, Sandy Lerner and Len Bosack, connected first at Stanford University and went on to found Cisco in 1984. Cisco's first product, the Advanced Gateway Systems or AGS router, allowed disparate network protocols to communicate and connect. As the popularity of the Internet grew, the demand for networked computers saw unparalleled growth. For many years, Cisco was *the* provider of the world's Internet backbone, with 80% of Internet traffic traveling through Cisco routers or switches deployed by Internet service providers. Cisco's 1990 IPO is considered one of the greatest of all time due to the company's explosive growth during the 1990s in technology and the Internet. By 2014, at 30 years, Cisco had more than 70,000 employees in more than 165 countries and was listed at number 55 on the Fortune 500.

Cisco's internal attempts at preserving its history had faltered. The one most lamented was a display of old artifacts in a campus café. Upon café renovation the display was removed. The artifacts themselves were never seen again. Cisco may not have had an archival collection, but no less than four different historical timelines

5. The few exceptions of technology company archives outside Silicon Valley include the IBM, Microsoft, and Motorola corporate archives.
6. Examples include the Apple records at Stanford University's Silicon Valley Archives, the Remington Rand records at Hagley Museum, the Control Data Corporation records at the Charles Babbage Institute at the University of Minnesota, and the Digital Equipment Corporation records at the Computer History Museum.

had been created over the years prior to the start of the Cisco Archives, giving reason to hope for Cisco's interest in their history.

The approach of Cisco's 30th anniversary in 2014 played a large role in creating the archives. Other unique Cisco factors were equally important. Cisco was one of the oldest companies in Silicon Valley, an achievement that is not lost on observers when the life of a company can be just a few years within the Valley ecosystem. Also noteworthy was CEO John Chambers's almost 20-year tenure at the helm. His approaching retirement, and the specter of other retirements looming on the horizon, created an impetus to preserve the history now.

In 2013, a fortuitous opportunity presented itself to Cisco and to the Computer History Museum (CHM) in Mountain View, California. During a museum board meeting, a casual conversation between the board chair and a fellow board member from Cisco, Don Proctor, eventually resulted in a three-year agreement to preserve Cisco's almost thirty-year heritage. The agreement established the Cisco Archives, staffed by CHM archivists onsite at Cisco's main campus in San Jose, California. The intention was not a deposit agreement or acquisition of historical materials for the museum's permanent collection, but a freestanding corporate archives. Upon completing a service agreement, Cisco Senior Vice President Proctor announced the new endeavor.

We are very pleased that [Computer History] Museum involvement will provide gravitas to the Cisco Archives endeavor by tapping into their extensive archival and curatorial expertise. Correspondingly, by generously supporting the Museum we are making a commitment to preserving the broader and unparalleled history of Silicon Valley. The Archives contributes to a sense of pride in Cisco's heritage through a shared understanding of its employees and the company's achievements to our customers, our own success, and networking history.⁷

This innovative 2013 collaboration provided Cisco and CHM with the opportunity to capture and preserve history in the present. If they tried to collect fifty years from now, they would be out of luck. The Computer History Museum currently preserves 9,000 linear feet of Cisco archival materials with a professional archival staff committed to making the history of computing accessible.

Building the Cisco Archives

The founding archivist, Paula Jabloner, a long-term CHM archivist and director of collections, benchmarked with several other corporate archivists from various technology companies. When asked what the key was to starting a successful

7. Computer History Museum, "Museum and Cisco Collaborate to Build Corporate Archive," *Core*, 2015, https://issuu.com/computerhistorymuseum/docs/2015_core/54 (accessed September 30, 2019).

corporate archives, they emphasized “staff engagement,” closely followed by an understanding of corporate culture. In the corporate environment, an understanding of the culture and the ability to promulgate it are immensely important. This buttressed the stakeholders’ original reasoning for establishing the archives and provided direction in the start-up phase.

Gaining support for any new archival endeavor is never easy. The Cisco archivist’s top objectives involved collecting and outreach. She aimed to acquire materials uniquely expressing cultural relevance within Cisco. The Cisco Archives Statement of Purpose reads:

To collect and preserve Cisco's history, and to embody the pride we have in our heritage by highlighting our accomplishments, celebrating our employees, and affirming our iconic role in the history of internet technology.

Collecting started in earnest six months after the initial agreement. By this time, Cisco had provided a 1,000 square foot space outfitted with secondhand bookshelves and a few tables. More importantly, Jabloner was able to add a fulltime archivist to the team.

A network of stakeholders helped cultivate new contacts including several longtime engineers with an abiding interest in history and Cisco’s brand team. But how to expand the audience beyond these one-on-ones and tell all employees about the new project? Working with Cisco Employee Communications the archivists posted a “Got Old Stuff?” announcement on Cisco’s main internal web page.

Four hundred replies, 90 donors, and 100 linear feet of materials later, collecting had begun in earnest. In line with the Statement of Purpose, the question became *why collect if no one knows you have this cool stuff?* So the archivists created a Cisco Archive online catalog as soon as they could.⁸ It went live in Spring 2015.

The new archives was fortunate to catch the attention of a freelance journalist, who in 2015 wrote an article on Medium.com. “How Cisco is Preserving its History and Why Other Tech Companies Should, Too” focused on Cisco’s culture as a driving force of this unique project:

“We realized we had a lot of stuff relating to Cisco history and we should take good care of it and respect it,” explains Mike Sanchez, a Cisco senior manager who develops employee-based brand experiences and is involved with the Cisco Archives. “We also think that collecting and categorizing

8. The Cisco Archive collections catalog is available online at <https://ciscoarchive.lunaimaging.com> (accessed September 30, 2019).

this stuff will reveal significant things about Cisco's culture, like good archaeology does."⁹

Despite the success of the Cisco Archives, collecting was not as broad and inclusive as the archivists would have liked. It leaned toward cultural items and oral histories. The archivists were not able to acquire as many internal engineering plans, sales figures, and marketing materials as they wanted. However, the collection does provide a rather comprehensive snapshot of Cisco over its first 25 years. Even though the collection was not perfect, collecting something was better than collecting nothing. The archives was meant to support the importance of culture at Cisco.

"It's about preserving those things that were important in making us a great company, paying homage and making sure they remain interwoven into our culture," says Phillip [Remaker], a Cisco Archives co-founder, and long-term Cisco engineer. "It's Cisco's people, stories and mission that make the culture special. When we talk about changing the way people work, live, play and learn, we mean it," he says.¹⁰

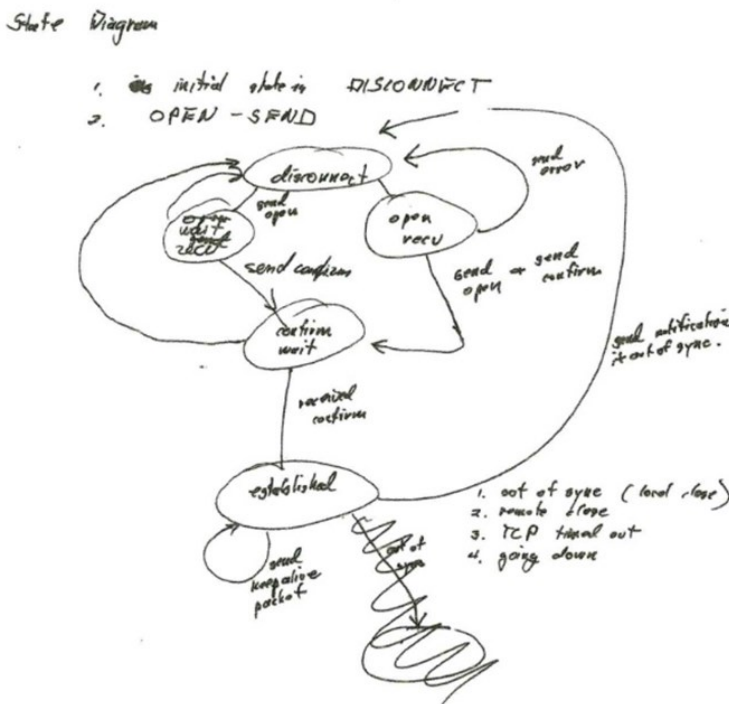
The archivists resurrected and embedded this culture by leveraging napkins, postcards, t-shirts, and other swag bearing historical motifs to engage with employees. The strategy was to post digital objects online and reproduce donated artifacts that had a unique cultural tie to Cisco. The items were selected to resonate with "old-timers" but also bring newer employees into Cisco's story. Many of the artifacts have become magnets for selfies when people visit the archives.

The Cisco archivists' biggest success story was its use of the Border Gateway Protocol, a routing protocol described as the technology that "literally makes the Internet work." The protocol was originally sketched in classic Silicon Valley style on two napkins over lunch.¹¹ Having undergone many revisions, it is as relevant today as it was when jointly written by a Cisco and IBM engineer in 1989.

The archivists' *Two-Napkin Protocol* blog post on Cisco's employee homepage in spring 2014 garnered the most web views of any piece that week. Comments included "Fantastic," "Awesome," "A lunch that changed routing forever!" and "What an

9. Elizabeth Woyke, "How Cisco is Preserving its History and Why Other Tech Companies Should, Too," *Medium*, July 15, 2015, <https://medium.com/adventures-in-consumer-technology/how-cisco-is-preserving-its-history-and-why-other-tech-companies-should-too-48edfa710c6d> (accessed October 1, 2019)
10. "Two Cisco Veterans Embody the Best of Our Rich Heritage," *We Are Cisco*, April 13, 2017, <https://weare.cisco.com/c/r/weare/amazing-stories/amazing-people/cisco-heritage.html> (accessed October 1, 2019)
11. Paula Jabloner, "The Two-Napkin Protocol," *We Are Cisco*, January 26, 2015, <https://weare.cisco.com/c/r/weare/amazing-stories/amazing-things/two-napkin.html> (accessed October 5, 2019). The article was later published with additional text relating to CHM as: "The Two-Napkin Protocol," *Computer History Museum*, March 4, 2015, <https://www.computerhistory.org/atcm/the-two-napkin-protocol/> (accessed October 5, 2019).

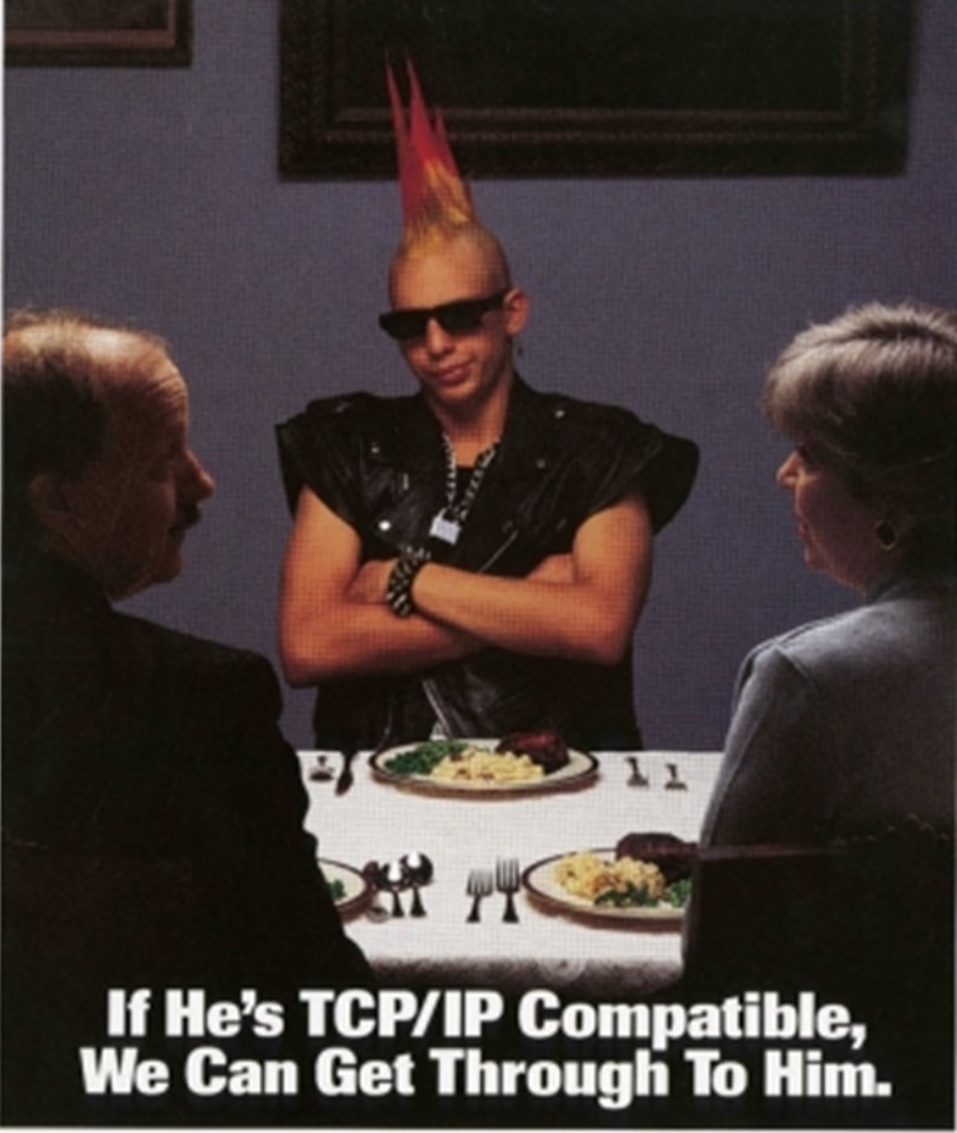
inspiring story!” The post continued to reverberate months later when the archivists were asked to work with a protocol author and one of Cisco’s founding engineers to produce a video to complement an “Innovate Everywhere!” company challenge. The video, shot in the Museum’s exhibition space, debuted at the first company-wide meeting of Cisco’s new CEO in 2017. The publicity quickly led to new artifact donations. At this point, the archivists deployed another engagement tool that had been featured in the video—a reproduction of the napkin as a promotional give-away. This item had broad appeal; engineers loved it, and many posted it above their desks.



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Border Gateway Protocol, 1989
original by Kirk Lougheed & Yakov Rekhter
Center for Cisco Heritage, heritage@cisco.com 

Figure 1. Border Gateway Protocol reproduction napkin, 2019. Courtesy of Center for Cisco Heritage, LLC.



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Figure 2. Example of Cisco's first ad campaign in Network World, 1992. Courtesy of Center for Cisco Heritage, LLC.

Another popular giveaway was a postcard reproduction of Cisco's first advertising campaign, which asked and answered the burning question: What do dolphins, radio telescopes, a punk rocker, and flying saucers have in common? Communicating across the divide! The ads contained pithy copy such as "Why Didn't They Just Put A Cisco Router On Board?" These and similar marketing tools were indispensable whenever the archives gathered a crowd, such as the 80 individuals who attended the first archives open house, just six months after the "Got Old Stuff?" announcement.

The Cisco Archives' major achievement for 2016 and 2017 was the design and curation of the *Our Story* heritage exhibit in Cisco's headquarters building. *Our Story* outlined Cisco eras from its startup days through 2006, reflecting the CHM policy that history be at least 10 years old. This was the toughest undertaking to date but also the most successful. The opening drew 150 individuals, including both the current and a former Cisco CEO, and inserted corporate history solidly in a flagship location.

Because of the exhibit's success, the archives was given a more desirable space at the center of Cisco's campus. As of Summer 2019, the archivists are in discussions to expand the exhibit as Cisco redesigns its Customer Experience Center.

The collaboration also triggered an annual Cisco community weekend at the Computer History Museum. This is a perfect venue to introduce folks to CHM and the Cisco Archives. Entire families, from small children to grandparents, engage with a pop-up Cisco heritage exhibit and receive free admission.

Sustainability

By 2015, it was clear to the stakeholders that this innovative approach to creating the Cisco Archives was a stunning success for both the Computer History Museum and Cisco.¹² The question then became how to sustain the endeavor. Don Proctor, the archivists, and staff at the Cisco Foundation began a second round of benchmarking with corporate archives on future direction. In 2016, after the original agreement that established the three-year startup phase was completed, the informal Cisco Archives became a licensed limited company, or LLC, under the name Center for Cisco Heritage, a fully-owned subsidiary of Cisco. The Center was placed under the sponsorship of the charitable Cisco Foundation and a management committee while continuing the collaboration with the Computer History Museum. Legal, administrative, sustainability, and access concerns made the LLC option the most reasonable for the stakeholders. The LLC is governed by a management committee consisting of both current and retired employees, with Proctor acting as head of the committee. The alternative options considered included ownership and management by CHM, ownership by a local community foundation and management by CHM, or ownership by the Cisco Foundation with either CHM or in-house management.

12. The Center for Cisco Heritage website is available at <https://computerhistory.org/center-for-cisco-heritage/> (accessed October 1, 2019).

Two key factors made this endeavor notably different from traditional corporate archives. One was Cisco's insistence that the archives be formed as an LLC and placed within the Cisco Foundation. Foundation placement guarantees the archives longevity by separating it from the roller coaster of quarterly profits and losses. This has had surprising resonance with the Cisco stakeholders, perhaps because they have spent their careers in a very competitive and volatile industry.

Second is collaborating with the Computer History Museum, which adds "gravitas" to the project. CHM involvement has been instrumental in Cisco endorsing the Center. It guarantees a professional staff of archivists and curators, who have experience preserving history and making it vibrant and accessible. To stakeholders, this is the difference from a dedicated employee who assembles a collection on the side, only to be dismantled when the employee leaves or a space crunch ensues. In the event the Center LLC ceases, the Museum is available to preserve the most significant historical materials.

Impact on the Computer History Museum

Some have questioned diverting resources, chiefly in the form of qualified staff, from the CHM's core mission. CHM leadership believes that this needs to be decided on a strategic, case-by-case basis.

One of the defining questions around collecting technology and business history is whether companies will accept the challenge or whether a reliable third party is needed to do this. CHM is exploring whether it is possible to create a scalable model within the Museum to perform this work across multiple companies. In May 2017, CHM acquired the Google Founders Collection.¹³ The collection is housed at the Museum, with CHM staff providing access and preservation services to Google. Housing the collection at the Museum is more scalable for CHM than the Cisco model while also ensuring the preservation of Silicon Valley history. For CHM, the collaboration with both Google and Cisco were wins because they come with funds that help support the Museum's core operations.

These corporate history projects broadcast the message that technology company history is important and worth preservation. For Cisco and the Museum, the Cisco project is more than documenting the networking equipment that built the Internet. The Center shines a spotlight on a culture of entrepreneurship, innovation, leadership, social responsibility, product development, open standards, and customer advocacy. Meanwhile, the insights learned by preserving Cisco's history will inform the Museum's endeavors to collect and interpret a broader spectrum of Silicon Valley history.

13. "Rare Google Founders Collection Comes to the Computer History Museum," Computer History Museum, June 7, 2017, <https://www.computerhistory.org/press/google-founders-collection-comes-to-computer-history-museum.html> (accessed September 10, 2019).

Case Study 2: Saving the Hewlett-Packard Company Archives

Background

Hewlett-Packard (HP) is considered one of the founding companies of Silicon Valley. Referred to as the “original garage startup”, HP began in 1939 as a partnership between recent Stanford graduates William R. Hewlett and David Packard. From its humble origins in a Palo Alto garage as a manufacturer of test equipment, HP grew to be one of the world's leading technology companies with products spanning personal computing, imaging and printing, enterprise servers and storage, and networking, as well as technology support, maintenance and consulting. By 2014, HP was a global company with 302,000 employees, revenues of \$111 billion, and was listed at No. 17 on the Fortune 500.

HP's greatest contribution to Silicon Valley was its corporate culture and management style, known as the HP Way. Based on responsibility to employees and the community, technical contribution, lack of hierarchy and what is referred to today as “Management by Objective,” Bill Hewlett and Dave Packard built a management style that was perfect for supporting the rapid innovation and change of the high-tech industry. It became the model for every Silicon Valley company.¹⁴

Because of the founding role and influence of HP in the development of Silicon Valley and the technology industry, the HP Archives is considered one of the most significant technology business archives in the U.S. However, it too began humbly when in 1987 the Executive Vice President of Communications brought in two archival consultants to prepare for the company's upcoming 50th anniversary. Due to the success of this project, the archives was made a permanent part of HP, employing professional archivists as full-time employees. With a mission of telling the story of HP's history of innovation, the archives grew steadily, adding to its collection of company materials, manuscripts, audiovisual records and first-time or breakthrough products.

At the start of the 21st century, emerging Silicon Valley business trends began to affect the HP Archives. Notably, a major spinoff in 2000 of HP's founding business (and the relevant archives collections) resulted in the creation of a new archives at Agilent Technologies, the new HP spinoff company. The HP archivist moved to Agilent, creating an opening for the archivist position at HP. Therefore, in 2000, after the Agilent spinoff, Anna Mancini became the new HP archivist.

Although the spinoff was made along product lines, the shared history of the two companies required that some archival assets be duplicated while others were separated between the HP and Agilent archives. The result caused multiple problems for archivists at both companies. For example, despite the best attempts to separate

14. David Packard, *The HP Way: How Bill Hewlett and I Built Our Company* (New York: HarperCollins, 1995).

relevant assets, archivists found that they often needed to access materials from the other company to answer research questions. This required a close and positive working relationship between the archivists and increased the time needed to answer information requests.

Another problem was that the same materials were available from both companies, thus reducing each archives' control over access to media and researchers. In other words, one archives could grant access, and the other refuse access, to the same photograph. Likewise, duplicate materials, including photos, were covered by two different copyright statements. Furthermore, both archives could not benefit from digitization or other projects undertaken by one company. For example, when HP produced and copyrighted a documentary on its founding and growth, the film could not be used by Agilent, even though both companies shared the same early history. These problems were compounded when Agilent split in 2014 and created a third corporate archives containing HP's early history.

Meanwhile, during the 2000s the HP Archives endured HP's acquisition of five other significant technology companies and their archives, budget cuts, reductions from three full time staff to one archivist, countless rounds of layoffs and a management succession of six CEOs in ten years. In the midst of this chaos, in 2005 the archivist embarked on a major two-year project to restore and add to the archives collection what is considered its crown jewel: the original garage, house and shed where Hewlett-Packard was founded in 1939. Located in Palo Alto, California, the world-famous garage was granted California State Landmark status as the "Birthplace of Silicon Valley" and, after the restoration, a listing on the National Register of Historic Places.

Although the garage property was not opened to the public after the restoration, the site has been visited yearly by thousands of tourists from around the world wanting a glimpse of the iconic garage at the end of the driveway and a photo memorializing their visit. More importantly for the company, the garage was used for marketing, advertising, branding and sales. For example, executives hosted private tours and business events for HP's highest-level customers at the garage. This sales strategy differentiated HP from Silicon Valley competitors.

By 2014, the HP Archives collection was unique, comprehensive, and professionally organized and maintained despite the turmoil that the company had endured. The collection was heavily used across the company by all product groups and corporate functions and at all management levels, including the Office of the CEO. Content-rich external and internal websites were used extensively by media, researchers, and employees for reference and research. The archives heavily supported the company's 75th anniversary celebration at HP's major trade show in June 2014.



Figure 3. The restored HP Garage in 2006. In 1939, Bill Hewlett and Dave Packard founded Hewlett-Packard Company in this Palo Alto garage. Courtesy of Hewlett-Packard Company Archives, LLC.

Four months after HP's 75th anniversary event, on October 4, 2014, HP CEO Meg Whitman shocked employees by announcing plans to split Hewlett-Packard Company into two separate companies, each of which would hold vestiges of the original company name. Hewlett Packard Enterprise would be a corporate computing and networking company selling servers and data center hardware and software, while HP Inc. would be the printing and personal computing company. Day One for the two new companies would be November 1, 2015. This gave the company one year to separate all of its assets—a gargantuan task.

Of course, the immediate question for the archivist was: What would become of the corporate archives? HP's CEO created a three-person executive team to make all decisions regarding the division of assets. This separation team controlled the process: they initiated requests for input, which then travelled down through the chain of command to the archivist—and vice versa for responses.

In November 2014, the corporate archivist was asked by her manager to prepare and submit a proposal for disposition of the archives. At the time, lower management assumed that the HP Archives would remain with Hewlett Packard Enterprise, because the archives reported to a group that supported enterprise sales. Although she would have preferred to talk to executives of HP Inc. to see if they wanted a corporate archives, the separation process required that she not communicate with executives outside of a separation team request. Blocked from obtaining direct input from stakeholders, she proposed what she thought was best for the archives based on the information she had, past experience with spinoffs, benchmarking with other technology archives that had been through corporate restructurings, and archives usage data. Her main goals were to: 1) prevent the archives from being destroyed, and 2) keep the collection intact. She did not want to split the collection, as had happened in previous reorganizations.

Management expected her to lay out all of the possibilities for evaluation. Therefore, the first proposal, submitted in December 2014, outlined three options:

1. Transfer the entire archives to the nonprofit company foundation, which the archivist assumed would stay with Hewlett Packard Enterprise. The Hewlett Packard Enterprise Foundation archives would perform services for HP Inc. via a service agreement to be renewed annually.
2. Split the HP Archives along product lines between Hewlett Packard Enterprise and HP Inc., with each company employing their own archivist.
3. Donate the archives to a nonprofit repository.

The archivist recommended the first option. Her primary rationale was that placing the HP Archives in a nonprofit structure such as the company's existing charitable foundation would preserve the archives in case of future mergers, acquisitions, spinoffs or cost-cutting. Her understanding was that once the collection was in the nonprofit foundation, it could only be donated to another nonprofit such as a university special collection, museum, or another company foundation.

Another reason to support Option 1 was that providing services to HP Inc. via a service agreement would fulfill HP Inc.'s needs without the expense of creating their own archives. Furthermore, all materials would be covered by one copyright statement, as opposed to the situation that happened with the previous spinoff.

With Option 2, both companies would have a full-service archives and product collection, and no service agreement would be required. However, the "cons" far outnumbered the "pros". For example, assuming the current archivist stayed with Hewlett Packard Enterprise, HP Inc. would have to fund and staff a new archives, including at least one full-time professional archivist. Splitting the collection was an enormous task which would require additional staff and be almost impossible to complete within a year. Likewise, it was extremely difficult to split along product lines. Due to the shared business history, a significant part of the collection would have to be duplicated. Furthermore, there was a good chance that the archives would be lost or destroyed if either new company split, sold a division, or was acquired in the future. And again, two different copyrights could be applied to some materials. Most importantly, it was impossible to "split" the garage.

In fact, splitting actually reduced the value of the archives—in order to tell the complete story of HP, the collection was more valuable together than in pieces. Splitting also reduced the chance of donating the collection in the future.

Regarding Option 3, donating to a nonprofit repository such as an academic institution would remove the expense of maintaining a corporate archives. It also would make HP's history more widely available to scholars. However, a donation most likely also would require a substantial endowment from HP.

There were other risks. If the collection was donated to an academic institution with a standard deed of gift, it was likely that HP would lose practical access to its materials. This was a working collection for a company that was still in business. HP required full and immediate access to materials in order to respond to voluminous information requests from media and employees. This immediate access typically is not possible when a collection is held by an academic institution. Additionally, HP would have limited ability to designate confidentiality or restrict use of the collection. For a Silicon Valley company that still was conducting business, this could lead to serious problems involving trade secrets, product plans, personnel privacy and confidentiality.

It also was likely that only a very small portion of the archives would be accepted for donation. The three-dimensional product collection alone was problematic in that its contents numbered in the thousands and no major repository collected its diverse product areas. Finally, the chances of an institution accepting the garage property as a donation were extremely low. All inquiries to nonprofits made at the time HP purchased the garage in 2000 had been declined.

Several months after submitting the initial proposal, the archivist was asked to make a presentation on the contents of the archives to a member of the separation

team. However, it was not until July 2015 that the separation team finally communicated its decision. The archivist was pleased to discover that the separation team's solution supported both her goal that the archives remain whole and the separation team's requirement that both companies be able to use it. The team's creative solution that built on, but was essentially different than, the options suggested by the archivist, included the following requirements:

- The archives would be placed in its own separate company, accessible to both Hewlett Packard Enterprise and HP Inc. HP had used this strategy successfully in previous spinoffs to hold shared patents, and the separation team felt the same strategy could be applied to the archives. The new company, a Limited Liability Company, would officially be called Hewlett-Packard Company Archives, LLC
- The LLC would be a joint venture with each of the two new companies (HP Inc. and Hewlett Packard Enterprise) funding 50% of the operating expenses. An annual budget was set for an initial three-year contract.
- The company would have no employees. A third-party archival services firm would manage the archives, reporting to a managing board. The board would consist of three people from each company.
- When the transition of the management of the archives to a third-party source was complete, the existing archivist would remain an employee of Hewlett Packard Enterprise and continue to document the history of Hewlett Packard Enterprise going forward. HP Inc. would then decide whether to hire their own archivist in addition to using the joint venture archives.

Hewlett-Packard Company Archives, LLC was officially formed on September 23, 2015. Leadership signoff of the final strategy was achieved October 30, 2015, an exception was made for the archives to move to the new structure after the November 1 deadline. In order to support the two separated companies, the Legal Department issued a Temporary Service Agreement making the corporate archivist an employee of both Hewlett Packard Enterprise and HP Inc. for the next year. She would continue to manage the archives, serving both companies, until an archival services firm was selected. Management also provided a program manager position to set up the LLC and select an archival services firm while the archivist continued to manage the archives. A Request for Proposal (RFP) was issued in September 2015 to a number of archival service provider (ASP) firms. The RFP was comprehensive, including requirements to:

- Maintain and manage all operations of a major corporate archives to professional standards to communicate company history to customers, employees, media and researchers, including cataloging, collection management, acquisitions, storage, information requests and digitization.

- Manage the HP garage property, including scheduling, calendaring and executing tours and events, and training tour guides. Manage all upkeep and maintenance of the property following national standards for architectural preservation. Manage security, property taxes, utilities and parking. Ensure needs of the overall neighborhood are met.
- Store the archives collection at a non-HP site. The LLC had no physical location, and nothing could remain on an HP Inc. or Hewlett Packard Enterprise site, since they no longer owned the collection. Therefore, the entire collection had to be stored by the services firm at their facility. Ownership of the garage property in Palo Alto would be transferred to the LLC.
- Create new opportunities for use of the archives inside and outside of Hewlett Packard Enterprise and HP Inc.

All of this was to be accomplished with strong operational processes, a world class staffing model, and to professional standards. Prospective vendors were also asked to submit a budget to deliver the program for an initial term of three years with an option to renew.

What really made this RFP unique, however, was that in addition to running the archives, the services company would be required to manage the LLC itself. That meant devising an accounting system, paying bills and taxes, and reporting expenses to the board—essentially setting up and running a company.

The process of issuing the RFP, reviewing responses, coordinating site visits from selected respondents, deciding on a vendor and obtaining the internal funding for the joint venture archives took the better part of a year.

HP signed a contract with an ASP in July 2016. Because the process of getting to a signed contract took longer than expected, the original one year allocated for transferring the archives to the LLC was cut to six months, and the project deadline was moved back to January 31, 2017.

After an initial two-day meeting, the HP program manager held weekly transition meetings with the ASP to transfer responsibilities for the archives and establish roles.

- Six ASP staff were assigned to the HP account, including a dedicated archivist to answer information requests and a manager for garage tours, events and maintenance. Other ASP employees were assigned to organize, accession and rehouse the physical collection, transfer the existing collections database into their proprietary software, digitize and catalog the document collection using the ASP's proprietary software, move the physical collection to the ASP's secure warehouse, write branded historical pieces, handle anniversaries, manage the account, and set up finance and accounting functions for the LLC.

- News of the transfer of the archives was posted on internal HP Archives websites along with contact information for the ASP.
- The HP archivist began to refer questions to the ASP.
- The ASP took over operating the garage. The program manager held meetings with Hewlett Packard Enterprise and HP Inc. program managers to refresh procedures and criteria for customer tours and events, approvals, calendaring, catering, tour guide management and training, security and maintenance.

The first priority was moving the physical collection to the ASP's location, outside of California. For four days in August, six ASP employees descended on HP's Palo Alto headquarters, where the physical collection had been consolidated from various HP sites and remote storage locations. ASP staff packed, boxed, palletized, moved and loaded the contents of the physical collection, filling two climate-controlled tractor trailers. The trucks were secured and driven nonstop to the ASP location, where another ASP team ushered everything into their dedicated secure warehouse.

Several more months were spent consolidating and transferring digital collections plus additional physical collections that were held in other states due to mergers and acquisitions. Transfer of all materials, physical and digital, was completed by January 31, 2017. When the transfer was completed, the Hewlett-Packard Company Archives was in one single location for the first time since its inception. Two years and four months after Meg Whitman's separation announcement, Hewlett-Packard Company Archives LLC was operating as an independent company managed by an ASP.

Impact

As a result of the separation of Hewlett-Packard Company, the HP Archives was completely outsourced. Although the archivist had been told she would have a position in the new enterprise company to establish a corporate archives for that company going forward, she decided to retire instead. The archivist position was not replaced. This meant the end of a professional corporate archivist position that had existed within HP for almost thirty years.

However, the benefits offered by the scalability and flexibility of personnel made possible by the ASP outweighed the loss of this position. Initially the ASP assigned six full-time people to the HP account to perform basic archival tasks of reference, accessioning, collection management, cataloging and managing the garage—all of which had been the responsibility of the lone HP archivist. They could ramp up with extra employees for large digitization projects. They could quickly assign six people to handle the physical move. They provided an accountant to manage the LLC's finances and taxes—a role outside of any professional archivist's experience. HP had the use of experienced writers for branded history pieces and anniversary materials—work that

the HP archivist had difficulty leveraging from other groups at HP. All of this was within the ASP budget and essentially invisible to HP.

Furthermore, working within HP, the archivist would have had to submit separate proposals to obtain budget and hire agencies or contractors to perform these tasks. Usually the budget would not be available and finding professional archivists to accomplish these tasks would be impossible with the limitations set by HP procurement regarding use of approved agencies. While it was virtually impossible to obtain headcount at HP, through the vagaries of corporate operations there was a better chance of getting budget approved to hire external consultants and services—such as an ASP.

The loss of an archivist position was also offset by the increased efficiency of contracting with an ASP whose mission was to preserve materials and make them accessible—which is not the overall mission of a technology corporation. When embedded in an organization, the archivist often is forced by company requirements to use internal resources such as content management systems, that do not scale for the archives; or to use approved company vendors for offsite storage and supplies; or to store digital collections on internal servers that are vulnerable to IT moving them or shutting them down without notice, or worse, being periodically swept for “old” material, which of course is the domain of archives. With the ASP, the LLC board of directors pays one bill for technology especially created for archives and the services of professionals who understand how archives work. Archivists are not continually obligated to educate IT or marketing employees.

As a result of an outsourced ASP, there was a loss of the outreach that comes from in-person networking, possibly resulting in lower usage of the archives by employees. Furthermore, the archives, which for 30 years was located at company headquarters in Palo Alto, was being run remotely. Perhaps another vendor would have offered an onsite archivist, and that would have been ideal. However, because of its economies of scale, the ASP was able to offset this loss by offering a complete digital catalog of the collection, thus fulfilling an HP objective of making the archives accessible globally at a level the archivist could not have accomplished on her own with the limited resources the in-house archives operated on.

The archivist was surprised to discover some limitations to service levels after the ASP started answering reference requests. For example, any request that took over three hours to answer would require an extra fee to be negotiated with the client. Employees are used to using agencies and consultants, however, and it is safe to say that they tend to accept this “degradation” of service level.

The ASP also refused to handle any request that required a legal decision, such as granting permission for use of photos externally or copyright requests. Since these cases were routinely referred to the archives by the legal department, alternate procedures would have to be worked out.

Although there were some problems initially with the ASP's understanding that every request implied instant turnaround ("Silicon Valley time"), they quickly learned and adjusted to the culture with input from the HP archivist.

Sustainability

As with Cisco, the most important issue was sustaining the HP Archives. This was accomplished by establishing the LLC. First, it is a legal organization managed by a legal agreement. That agreement contains tenets to protect the archives. Once the legal agreement was signed, the archives had to be funded. Any wavering by the two partner companies during the initial funding process was quickly shut down by HP's legal department—the companies were legally required to fund. In addition, according to the terms of the legal agreement, neither company can pull out of the joint venture without the agreement of the other. If for some reason both companies had to leave the joint venture (bankruptcy, acquisition, etc.), the collection would be donated to a nonprofit institution.

The sustainability of the Hewlett-Packard Company Archives LLC (HPCA) was tested soon after its inception when HP's services division, which consisted of the former company EDS (formerly Electronic Data Systems) and its 250,000 employees, was spun off in April 2016. Normally, the portion of the archives pertaining to EDS would have been spun off as well, most likely to be spun off or acquired again—or lost. However, because the LLC was a separate company, it was not affected by the spinoff, and the small but important EDS collection was kept in the LLC.

Secondly, and again as in Cisco's case, the use of an archival services provider guarantees professional level archivists are maintaining the collection. Despite the disadvantages of outsourcing, the authors consider this a success story for corporate archives as the HP collection is intact, managed by professional archivists, and protected and used for its original mission—to tell the story of HP.

Summary

In the chaotic current business environment that is Silicon Valley, we were able to start one archives and save another by using two common elements: a legally protected repository and outsourced archives staff.

First, both Cisco and HP independently settled on a licensed limited company (LLC) as the legal structure for the archival repository. Because the LLC is a separate, private company, its contents (the archives) are protected from the vagaries of the market, including quarterly income expectations, mergers, acquisitions, spinoffs, and management changes. If corporate archives are in neutral and legally protected entities, they cannot be destroyed.

We admit that companies—even joint ventures with legal protections—don't last forever, and the LLC model does not guarantee the long-term preservation of the records. However, we maintain that presenting the collections as unique assets and in

good order improve the chance of eventual donation to a nonprofit repository. Just the act of collecting and providing access to materials aids in their long-term preservation as they are deemed historically significant. Furthermore, the establishment of an LLC in itself illustrates to future management the gravitas of the collection. In other words, the records have been selected as important, and it becomes much easier and more likely for them to be acquired and preserved by another repository if all else fails.

With regard to outsourcing, this is a word that every employee dreads because it means the loss of permanent full-time positions—sometimes our own jobs. But in the case of these two companies, it also means bringing in experts that offer scalability and flexibility that could not be achieved by the current structure. Perhaps more importantly, they offer gravitas. In the case of Cisco with no existing archives, the reputation of the Computer History Museum gave the project the seriousness and sustainability it needed to be approved. In HP's case, it is an unfortunate fact that in today's business environment, consultants often are more respected as experts than are dedicated employees. But in this case, it allowed the archives to continue to be professionally staffed.

In both cases, staffing flexibility was paramount. The transfer of the HP Archives to the LLC and its subsequent digitization could never have been accomplished by the HP archivist with the limited resources provided by internal budgets. The ASP was able to offer staffing flexibility, using different experts as needed for various projects. At Cisco, the CHM archivists were able to work full-time on the project for three years, then scale back as startup activities lessened and the onsite archivist was able to manage much of the ongoing activity. They also could tap into other specialists at CHM to conduct oral histories, digitize video, provide exhibit direction, and do special projects.

With the tech industry's lack of interest in looking back, only by working in tandem with an outsourced archival service provider will it preserve any of its history. There are a few exceptions of older, mostly defunct tech companies passively donating materials to repositories. We say this not because the current model has not achieved limited success and may still work in the future, but because we believe that most companies (tech or otherwise) are not preserving their history or even interested in doing so in any coordinated way. When history champions within companies become interested in preservation and collecting, they find an easier road when a third party can provide assistance and expertise. It takes the burden from the organization and works in the current business climate of reducing headcount by hiring consultants and contractors. Even a champion must sell the importance of history and secure funding. Our experience shows that it is easier in a corporation to get budget to pay for a service, rather than add headcount or dollars to an existing budget.

Conclusion

Through the experiences outlined in these case studies, we have come to certain conclusions to answer the questions asked at the beginning of this article: What can Silicon Valley corporate archivists hope to accomplish in the current business environment? How can we as archivists preserve tech history now?

Silicon Valley has essentially changed the world, and it is important to understand the processes that enabled this innovation and spirit. The more we preserve, the better we understand the phenomenon that is Silicon Valley, and the more people we have collecting and preserving this history, the better. The innovative solutions outlined in these case studies ensure that artifacts and stories of Silicon Valley culture will be preserved for Cisco, HP and future historians. Corporate archives and heritage projects benefit not only the companies that undertake them, but also future generations and society in general.

In both cases the results will increase our capacity to understand how what was once the agricultural “Valley of Heart's Delight” transformed itself into Silicon Valley.