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by

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Lifestreaming as a Life Design Methodology

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Report

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This report is dedicated to Kelly Cree.

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Lifestreaming as a Life Design Methodology

by

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The University of Texas at Austin, 2010

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My research explores the potential of lifestreaming as a life design methodology. Life design is the design of one's daily activities, habits and relationships. Like graphic or industrial design, life design can be approached using a specific methodology to solve problems—in the case of life design, problems of individual, daily life.

“Lifestream” was first defined by computer scientist David Gelernter as a software architecture consisting of a time-ordered stream of documents. Lifestreaming has evolved into the act of documenting and sharing aspects of daily existence online. A lifestream website collects the things you choose to publish (e. g., photos, tweets, videos, or blog posts) and displays them in reverse-chronological order. Putting one's life online might provide the critical perspective to help redesign it. After practicing lifestreaming for two years and performing four lifestream website experiments, I have devised a lifestreaming system that encourages users to gain more control over personal advancement and deliberate decision-making.

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In this report, I investigate the potential of lifestreaming as a life design methodology. I focus on four lifestream website experiments that best communicate my argument: *Jessica Mullen's Comprehensive Lifestream*, the *Financial Goalstream*, *Jessica Mullen's Filtered Lifestream*, and *Jessica Mullen's Lifestream Exhibition*.

Lifestreaming is the act of documenting and sharing aspects of daily existence online. A lifestream website is a space to archive all personal web publications in one location (aggregate materials: photos, tweets, videos, or blog posts) and displays them in reverse-chronological order.

Lifestreaming as a life design methodology

Design is a process of making conscious decisions to solve a problem. In graphic design (the profession I was trained in), one may select precise composition, typography and colors to best solve a communication problem. In life design, one may choose (or remove) distinct daily activities, habits and relationships to improve quality of life. Similar to graphic or industrial design, life design is a process of intentional decision-making to create a desired outcome.

A design methodology is a system for solving design problems. For example, in graphic design, one might go through several stages: (a) research, (b) ideation, (c) sketches, (d) feedback, and (e) revisions. A life design methodology would be a system to solve the problems of every day, individual experience. After practicing lifestreaming for two years, I have concluded that lifestreaming can be a process to address

problems in life design. Each person designs her daily life to some extent—for instance using basic time management tools. Putting one’s life online might provide the critical perspective to help redesign it. It is not just an organizational tool, but a tool that allows critical evaluation, reassessment and tweaking of daily choices.

Introduction to lifestreaming

Eric Freeman and David Gelernter invented the concept of lifestreams as a “network-centric replacement for the desktop metaphor” used in computer operating systems.¹ Freeman and Gelernter’s “Lifestreams” software architecture was meant to organize one’s digital life with a time-ordered stream of documents, instead of named files and folders. Freeman and Gelernter proposed Lifestreams in order to decrease the amount of time people had to spend managing their digital documents and events. Gelernter suggests modeling lifestreams after our own minds:

The point of lifestreams isn’t to shift from one software structure to another but to shift the whole premise of computerized information: to stop building glorified file cabinets and start building (simplified, abstract) artificial minds; and to store our electronic lives inside.²

1, 2 Freeman, Eric, and David Gelernter. “Lifestreams Project Home Page.” Computer Science at Yale University. <http://cs-www.cs.yale.edu/homes/freeman/lifestreams.html>

Any person who publishes her experiences, thoughts or knowledge to the World Wide Web may be called a lifestreamer. Commenting on blogs, posting photos or text on Facebook, and updating a Twitter account can all be considered acts of lifestreaming, but the act of lifestreaming is different from a lifestream website. A lifestream website is the container for an individual's lifestream; it is the collection of one's public activity across the web (e. g., statistics, bookmarks, photos, tweets, videos, or blog posts) displayed in reverse-chronological order. Collecting posts on a dedicated lifestream website can help provide control over organization, filtering, presentation and storage.

Lifestreaming precedents: diaries and logs

Long before David Gelernter and Lifestreams software architecture, analog precedents existed for the obsessive collecting of data and cataloging of one's personal and professional life. Before networked computers and digital technology, there were pen-and-paper lifestreamers—diarists. The key difference between then and now is that before the Internet, a diary was rarely a public document.

If put online, Leonardo da Vinci's notebooks could have been considered a lifestream. Steve Rubel writes, "I like to think of a lifestreaming as today's digital equivalent of Leonardo da Vinci's notebooks. [...] da Vinci recorded notes, drawings, questions and more in his notebooks. Some of these were quite mundane (grocery lists and doodles), others were not.

But the body of work was over time, a view of a one individual's mind.”³

The 17th century diarist Samuel Pepys can also be thought of in lifestreaming terms. Beginning on January 1, 1660, Pepys kept a diary in which he recorded his daily life in London for 10 years.⁴ He wrote extensively about relationships with women, friends, business matters, emotions, trivial concerns and his difficult marriage. The accounts of Pepys' personal life as well as national events in the 1660s became invaluable to historians of the period.

Similarly, since 1977 Senator Bob Graham has been tracking minute details of his life in small notebooks, including weight, location, attire, meeting notes and social interactions. Graham's personal data log, which Gary Wolf details on The Quantified Self blog (<http://www.quantifiedself.com/>), is a useful memory aid “allowing the topic of a conversation which may only be briefly mentioned in the notebook to flow back into his mind.”⁵

In the recent political controversy regarding whether House of Representatives Speaker Nancy Pelosi had been briefed in detail about torture of the 9-11 terror attack suspects, Senator Graham's notebooks became evidence. Graham was also supposed to have been briefed on

3 Rubel, Steve. “Why Lifestream? To Model Leonardo Da Vinci - The Steve Rubel Stream.” The Steve Rubel Stream - Insights on emerging technologies and trends.. <http://www.steverubel.com/why-lifestream-to-model-leonardo-da-vinci>

4 Gyford, Phil. “Pepys' Diary.” Pepys' Diary. <http://www.pepysdiary.com/>

the torture, but his personal records show that the CIA's timeline was inaccurate. Of the four briefings the CIA claimed to have given, only one was documented in Graham's notebooks. Personal notebooks proved to be a more credible source than an organization whose very reason for existence is information collection, communication and recording—because they corroborated what Pelosi and others said. Wolf remarks that “personal data, kept by a dedicated and interested party, even using yesterday's technology, will trump large scale collection systems managed by bureaucrats.”⁶

Contemporary lifestreaming: transparency and authenticity

Personal diaries, data logs, and journals are valuable for self-reflection and historical perspective. The key difference between da Vinci, Pepys, and Senator Graham and the online lifestreamers of today is that lifestreaming is an immediately accessible, public, online activity. The public nature of a digital lifestream makes the creator accountable for her actions and means anyone can have a hand in recording history—a particularly salient point now that the Library of Congress has started archiving tweets.⁷ The immediacy of lifestreaming provides relevance for readers. For example, a shared review, announcement or invitation can influence decisions to patronize a business or attend events.

5, 6 Wolf, Gary. “Politician as self-tracker - Bob Graham's notebooks,” The Quantified Self, <http://www.kk.org/quantifiedself/2009/05/politician-as-self-tracker.php>

7 Raymond, Matt. “How Tweet It Is!: Library Acquires Entire Twitter Archive,” Library of Congress Blog, <http://blogs.loc.gov/loc/2010/04/how-tweet-it-is-library-acquires-entire-twitter-archive/>

Collecting statistical data from one's life is a common component of lifestreaming. Also referred to as "self-tracking", it reveals patterns in behavior with the aid of networked computers. A few items that computers have made simpler are financial budgeting, counting calories, tracking physical activity and location, calculating carbon footprint, and monitoring sleep cycles. By measuring, sharing and comparing such activities online, we can begin to identify patterns in our behavior. Gary Wolf writes in *The New York Times*,

From the languor of the analyst's couch to the chatty inquisitiveness of a self-help questionnaire, the dominant forms of self-exploration assume that the road to knowledge lies through words. Trackers are exploring an alternate route. Instead of interrogating their inner worlds through talking and writing, they are using numbers. They are constructing a quantified self.⁸

Lifestreaming can be used for self-tracking and as an organizational tool, but the practice may appear rather self-obsessed to the uninitiated. Lifestreamer Julia Allison introduced the concept of using a lifestream as an attention-getting performance and reputation-builder. Allison broadcasts her life via her website, Nonsociety (<http://julia.nonsociety.com/>), to entertain and gain a media presence. Allison uses lifestreaming to control her personal brand and public persona. Allison's

8 Wolf, Gary. "The Data-Driven Life - NYTimes.com." *The New York Times - Breaking News, World News & Multimedia*. <http://www.nytimes.com/2010/05/02/magazine/02self-measurement-t.html?pagewanted=1&ref=magazine>

lifestream is an evolved form of resumé, which she uses to secure new work in television as an entertainment correspondent and in print publications as a freelance writer.

Allison garners significant media attention as a personality, one who is “famous for being famous.” Much of the attention is quite negative. A common critique of her online presence is that it is exceedingly narcissistic. While some lifestreamers may prefer to present themselves with total transparency, “warts and all,” Allison seems to take great pains to maintain a glossy “always-on” physical appearance. Though her text and video updates frequently reference a less-than-perfect life, her focus on surface beauty invites a plethora of parody websites, hate mail and gossip articles. Some may argue the effect is part of Allison’s attention-seeking scheme. I tend to be of the opinion that there is no such thing as bad publicity, and suspect that is Allison’s position.

Allison illustrates the concept of the lifestream as the resumé of the future. Every contribution to one’s lifestream affects one’s online and offline reputation. Pseudonymous lifestreaming is wasted opportunity to strengthen one’s personal brand. Using one’s legal or business name to create a lifestream results in a credible archive of unique professional abilities, communication skills, and temperament. Transparency may have negative effects on one’s personal brand, but anonymity won’t have any effect at all. In a competitive market economy, brand recognition may be more important than the brand reputation itself. A study in *The Journal of Consumer Research* notes that people who “are

aware of one brand in a choice set tend to choose the known brand even when it is lower in quality than other brands they have had the opportunity to sample.”⁹ The more hype and news surrounding a brand, the more likely one is to identify and even prefer the brand.

Keeping and reviewing one’s lifestream is not an inherently selfish behavior. Communications professor Yrjö Engeström’s work in activity theory describes viewing one’s own activity as an act performed to know how to integrate with other people:

In the consciousness of an individual there are ideally represented the needs, interests, and positions of other people [...] An individual’s own activity is also ideally represented in his or her consciousness, so that it can be evaluated and planned in accordance with other people’s positions.¹⁰

Humans are inherently social animals. “Social relations” were once constrained by physical location, but now the abstracted layer of social networks enables human interaction without regard for location. The tools we have for communicating through networked computers give us more opportunities for interaction.

⁹ Wayne D. Hoyer and Steven P. Brown, “Effects of Brand Awareness on Choice for a Common, Repeat-Purchase Product,” *The Journal of Consumer Research* 17, no. 2 (1990): 147.

¹⁰ Engeström, Yrjö, and Reijo Miettinen. *Perspectives on Activity Theory (Learning in Doing: Social, Cognitive and Computational Perspectives)*. New York: Cambridge University Press, 1999.



Figure 1: *U don't get the internet* video still

U don't get the internet part 1: narcissism as a path to better web content (September 2008 | <http://thepopularpodcast.com/?p=29>)

A common critique of livestreaming is that it encourages narcissistic behavior. Prior to my recent experiments with livestreaming, I created this video to confront thinking about the use of narcissism in the creation of web content. On the surface, the intended audience for the piece is anyone born before 1980. The mocking tone is meant to subtly provoke infrequent web users of any generation to question their own technological prowess, while ultimately poking fun at the video narrator herself.

U don't get the internet challenges the audience to embrace their own supposed narcissism, and to share their knowledge with others via the Internet. People are frequently wary of placing personal information in the public sphere; this piece addresses that fear by explaining credibility gained from using one's real name, the unlikelihood of stalking, and the potential to become a niche celebrity. In addition to fears of predators and identity theft, fear of irrelevance, or that what they share will not be good enough, too boring, or that no one will like it, scares many away from using the Internet as a creative outlet.

Using a style native to generation "Y"'s vernacular, *U don't get the internet* addresses accountability, privacy, niche celebrity and tools for publishing to the web through the lens of the claim that generation "Y" is the most narcissistic generation ever. Alan Kirby explains this generational difference in terms of philosophical movements:

In postmodernism, one read, watched, listened, as before. In pseudo-modernism one phones, clicks, presses, surfs, chooses, moves, downloads. There is a generation gap here, roughly separating people born before and after 1980. Those born later might see their peers as free, autonomous, inventive, expressive, dynamic, empowered, independent, their voices unique, raised and heard: postmodernism and everything before it will by contrast seem elitist, dull, a distant and droning monologue which oppresses and occludes them. Those born before 1980 may see, not the people, but contemporary texts which are alternately

violent, pornographic, unreal, trite, vapid, conformist, consumerist, meaningless and brainless (see the drivel found, say, on some Wikipedia pages, or the lack of context on Ceefax). To them what came before pseudo-modernism will increasingly seem a golden age of intelligence, creativity, rebellion and authenticity. Hence the name 'pseudo-modernism' also connotes the tension between the sophistication of the technological means, and the vapidness or ignorance of the content conveyed by it – a cultural moment summed up by the fatuity of the mobile phone user's "I'm on the bus".¹¹

U don't get the internet's message was defensively and abrasively delivered, zealously embracing pseudo-modernism.

¹¹ Kirby, Alan. "Philosophy Now | The Death of Postmodernism And Beyond." *Philosophy Now*. <http://www.philosophynow.org/issue58/58kirby.htm>

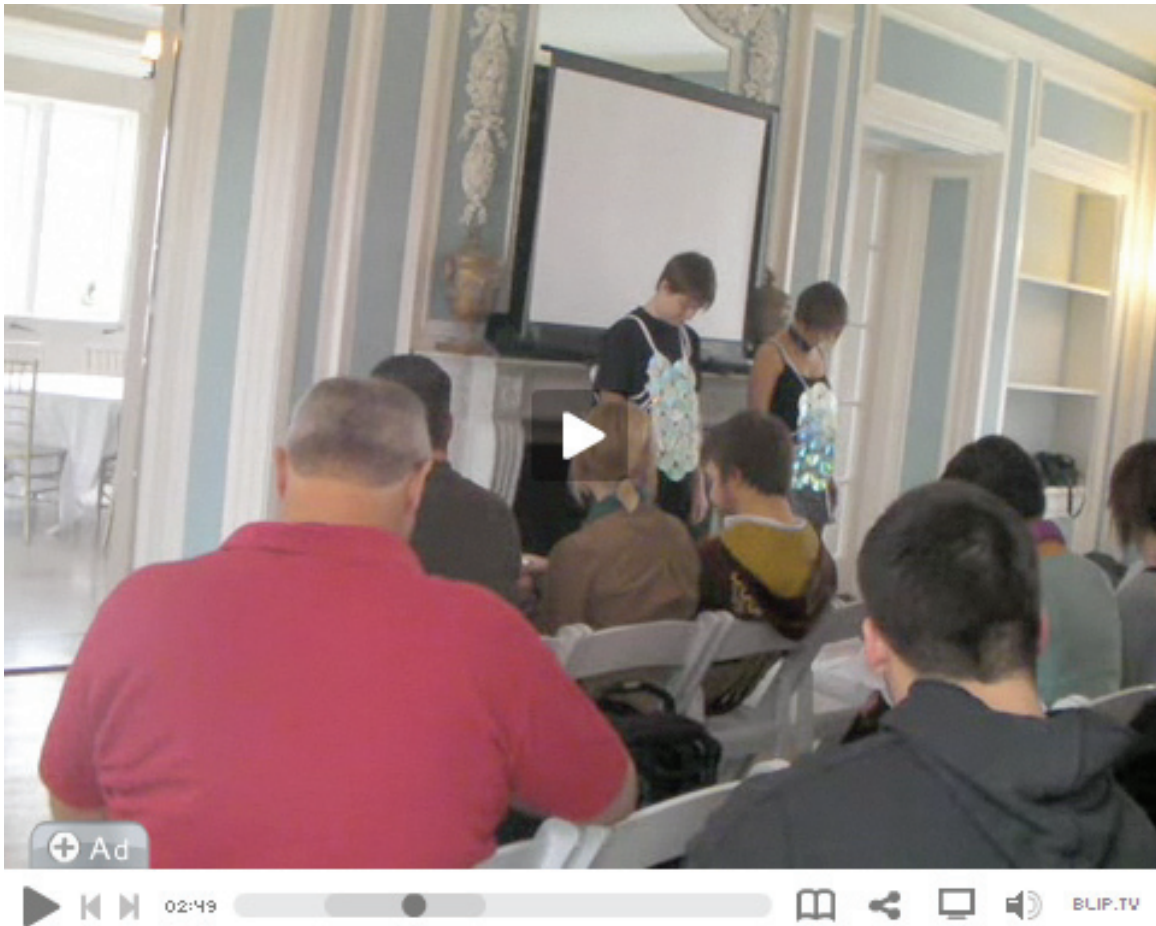


Figure 2: *The Church of Internetology* video still

The Church of Internetology (December 2008 <http://thechurchofinternetology.com>)

Taking zealotry to the next level, I cofounded the Church of Internetology with designer Kelly Cree. A polemical performance experiment sensationalizing Ray Kurzweil's Technological Singularity theory, The Church of Internetology was created to communicate beliefs about privacy, niche audiences, accountability and information overload. Technological Singularity theory describes the notion that

humans might one day build machines more intelligent than themselves. Such an augmentation of intelligence might result in transhumanism, in which humans transcend their biological limitations. Borrowing from Kevin Kelly's naming of the Internet the "One machine", Kelly Cree and I proclaimed The One as the all knowing web, the intelligent Internet, the last invention man will ever need to make. We provided declarations for preparing for the Technological Singularity, which were:

- There is no privacy. When you submit yourself for all the world to see, you become a better person, one who is accountable for her actions.
- In this era of information abundance, you must find a way to give value to yourself. Within the One, your value is determined by your contributions. You must create, and frequently create, or disappear.
- You must help your friends, your family, and those you want to take with you to the other side. Teach them how to create and share and add value to themselves. Help to close the knowledge gap this information era is creating so that we can save as many as we can.
- Realize that you have a niche that only you can cater to. Everyone has something truly unique to themselves that there is an audience for, somewhere in the world.

The Church took an evangelical stance on several contemporary legal issues, including the position that privacy does not exist and that intellectual property law is obsolete. The evangelical tone was an attempt to counter equally fervent arguments to the contrary. Taking cues from existing religions such as Christianity and Satanism, The

Church also considered the possibility of a derivative of the Internet one day becoming regarded as God.

The Church of Internetology was presented through a performance we called a “mass” at the Design Camp conference in early 2009. The mass was well received, but we didn’t provide action items for the audience. I had yet to devise or discover a satisfactory method for sharing life on the web. The Church dealt in abstractions and needed more research and technical scaffolding to provide a genuinely useful message.

Information overload, privacy and identity

Shortly after performing the mass of the Church of Internetology, I discovered livestreaming as a method for sharing life on the web. Ideas of livestreaming as a method for publishing one’s life can be traced to the lifestream of Julia Allison (<http://julia.nonsociety.com/>) and Mark Krynsky’s Lifestream Blog (<http://lifestreamblog.com>). In assessing their efforts, I realized the possibilities of livestreaming to be a tool for the extensive documentation of daily life and work. This online collection of one’s life documented and archived in one location might afford opportunities for individuals to holistically record and communicate important matters in their lives.

In addition to its potential as a new publishing method in web design, my interest in livestreaming was born from observation of, and participation in, several Internet phenomena: information overload,

changing expectations of privacy, and digital communication of identity. Networked computers have altered the characteristics and transmission of information. Digital data can be copied infinitely and effortlessly. Storage is low-cost and abundant, and transport is nearly instantaneous. Combined, these conditions create an environment that allows nearly anyone to publish nearly anything for the world to view. What results from the digital proliferation of information has been named an “information overload” for users of the Internet.¹² With no central point of organization or hierarchy, an individual may have difficulty locating, sorting, verifying and remembering useful or meaningful knowledge. How to cope with information overload was the starting point of my research.

As a graphic and web designer, effective communication of digital identity was important to me. A web designer must take a volume of information about a person, idea or business and turn it into a cohesive representation of that entity. What the designer chooses to display becomes a brand which represents the entity’s identity. Negotiating representation of my own identity on the Internet as an adolescent made me acutely aware of the assumptions we frequently make about privacy and identity. As an adult, I experimented with keeping professional and personal identities separate. Later, as a professional designer, I began to favor websites and digital identities that offered a combination of professional and personal, which seemed to make virtual

¹² Klingberg, Torkel. *The Overflowing Brain: Information Overload and the Limits of Working Memory*. 1 ed. New York: Oxford University Press, USA, 2008.

space a more accurate and authentic extension of the physical world. By mixing personal information with professional, potential clients or employers have a chance to see a more well-rounded expression of personality, enabling them to make a more informed decision about working with someone.

The ever-changing expectations regarding privacy as online and offline identities merge intrigue me. With constantly advancing search capabilities, the Internet made it easier to find a range of information connected to real people. Frequent news stories and the uneasy acknowledgement that hackers diminish the effectiveness of protections such as passwords made attempts to control privacy seem futile. After I was turned in by a co-worker for calling in sick to work and blogging otherwise, I refrained from publishing any potentially incriminating information in the future. In fact, I found that the more I published online, the more accountable and truthful I became.

When I entered graduate school in the fall of 2008, “social media” was the hot topic in the “blogosphere”. Twitter (introduced at South By Southwest Interactive in 2007), Facebook (created in 2004) and media sharing services like Flickr and Youtube had become hugely popular. As I approached the issue of how social media might be utilized to refine and promote online identity, I asked two pivotal questions. How might an online social environment, viewed primarily as entertainment, become a credible platform for building a marketable reputation? And what might result from consolidating all the personal

and professional data online? I wanted to test the potential of being able to access, monitor and share data from a single online location, in effect managing my identity, organizing my creative output, cataloging the mundane aspects of my life and archiving a range of previously private information, which would then be presented online without use of security systems, such as passwords and other filters.

Consolidating my online presence into one website became a priority and a way of testing personal identity design on the web. I wanted readers to be able to access the items I posted across disparate services in less time, so they could see a more accurate representation of who I was. I wanted to become accountable for all the things I uploaded to the web, so I did not have to worry about someone accidentally coming across something I did not want her to see. Taking ownership over my various accounts and postings created a forum for discussion that mixed the public and private, the banal and exciting. I began to see lifestreaming as an ideal lens of web design through which I could investigate specific aspects of privacy, information overload and identity.

Lifestream website experiments

The more people participate online, the richer the internet becomes. The digitization of reality into that which can be understood by computers is a first step to creating artificial intelligence that may potentially lead to the Technological Singularity. By encouraging people to digitize their lives through lifestreaming, the Internet becomes both richer and a more accurate representation of physical reality. Lifestreaming distributes the work of digitization of information by integrating into the daily lifestyles of individuals. Working towards a communal, intelligent database of human knowledge that would augment physical reality became the philosophical backbone of my lifestreaming investigations.

I conducted four experiments using myself as the subject to test the potential of lifestreaming. Each experiment is a different form of lifestream website that asks three questions: one about presentation, one about usage, and one about social impact. I was interested in how to design each lifestream website, how to optimally use each lifestream website, and the social significance of each lifestream website. The presentation question deals with how the lifestream website is designed. The usage question asks how I might use the site for a specific purpose. The social impact question briefly explores cultural conditions surrounding each site.

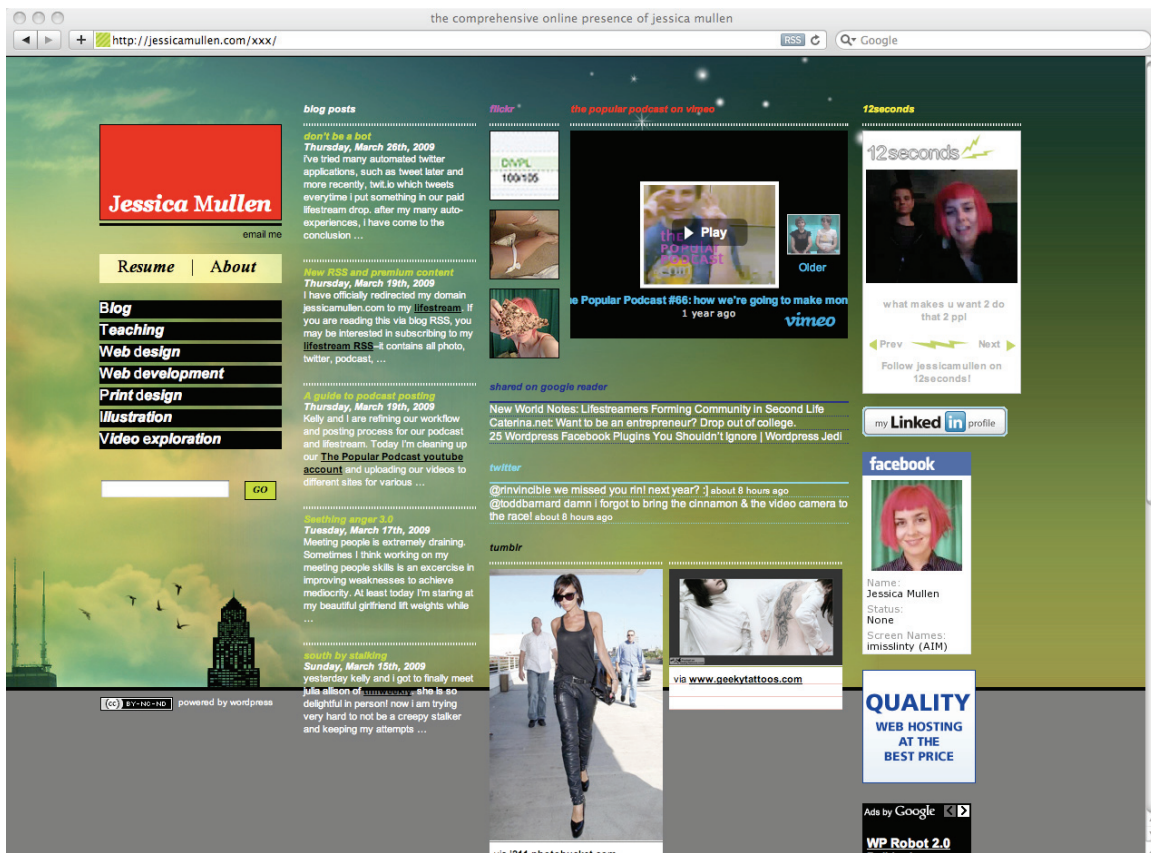


Figure 3: Jessica Mullen's Comprehensive Lifestream

Jessica Mullen's Comprehensive Lifestream Experiment (March 2009 | <http://jessicamullenslifestream.com/xxx/>)

Questions:

Presentation: How do I represent my identity with a lifestream?

Usage: What are the general uses and hurdles in the system of lifestreaming?

Social impact: what are the implications of lifestreaming on society as a whole?

Methods:

Continuing a search for better methods of sharing my life in a website that most accurately represented myself, I discovered the lifestreaming software “Sweetcron”, developed by Yong Fook. I installed the software on my web server, which enabled me to aggregate all of my posts from around the Internet in one place. By importing RSS feeds provided by different web services such as Flickr, Youtube and Google Reader, the posts from each service could be viewed chronologically in context with each other on my website.

Driving my initial lifestream work was Clay Shirky’s “publish then filter” method, discussed extensively in *Here Comes Everybody*.¹³ Shirky’s argument might be summarized as: it is better to publish junk than nothing at all. The purpose is to add data to the Internet that may be useful to others. This concept holds true in creative disciplines as well. To create one’s best work, the unoriginal, obvious and banal ideas must first be dumped out. By creating prolifically, one can make creative progress more quickly.

Results:

Presentation: How do I represent my identity with a lifestream?

I learned the mechanics of identity representation with lifestreaming. Lifestreaming usually involves sending updates about daily activities both to social networks (e.g., Facebook and Twitter) and to a lifestream

¹³ Shirky, Clay. *Here Comes Everybody: The Power of Organizing Without Organizations*. Boston: Penguin (Non-Classics), 2009.

website. Services like Posterous enable one to email updates from a mobile device, which are then forwarded to one's social networks and lifestream website, making the posting process more efficient. I also discovered a lifestream generally consists of two types of posts—(a) short form experience streaming, which tends to happen on mobile devices, and (b) long form self-reflection which tends to be done via computer.

Usage: What are the general uses and hurdles in the system of lifestreaming?

General Uses:

1) *Personal accountability*: Lifestreaming forces the streamer to constantly monitor and review her actions. It goes a step beyond journal-keeping by inviting the scrutiny (or encouragement) of the public.

An example is documenting meals. Monitoring food intake, whether via calorie tracker such as Fit Day (<http://fitday.com>) or in photos shared on Flickr, makes the eater extremely conscious of food choices she might not otherwise have noticed. Lifestreaming begins to help us through pattern recognition we can't achieve on our own.

2) *Process and failure documentation*: As a designer, I am continually interested in assessing and revising my problem solving strategies, learning from mistakes. I place great value upon project paraphernalia—the forgotten sketchbook pages, the unused video clips, notes from

brainstorms. By attempting to document and archive the bulk of these materials in a public, digital, searchable format, I can organize, review and share my methodologies and progress.

Documenting failed processes, projects and ideas is just as valuable as displaying achievements. By sharing information on what hasn't worked so far, one can save others time in their own problem-solving endeavors. This can undoubtedly hasten progress in any field.

Lifestreaming allows one to generate a specific path of information before knowing whether ideas are going to succeed or fail or even prove to be useful at all. The point is to collect and share the data to draw useful connections from later.

3) *Personal branding*: Online and offline life are beginning to merge into one seamless identity for many Internet users. The drawbacks of this convergence are generally defined as an identity-theft crisis waiting to happen, or a curse of future viewers taking communications out of context.

Lifestreaming is an opportunity to embrace the challenge of a merged online/offline identity. Lifestreaming creates a very constant and pervasive representation of oneself, digitally. As a continuously changing artifact of one's life, a lifestream becomes one's personal brand—what defines and distinguishes a person. Lifestreaming may potentially decrease risks of identity theft—a compromised lifestream

would be different in style and content from the original author's, making the intrusion noticeable. Lifestreaming also gives vast amounts of context to previously isolated forms of communications by providing a broader view of one's activities than any individual memento from one's life.

As one learns and shares about a specific topic online, one becomes known as an expert in that area. I post an enormous amount of information about my fitness and eating habits online, and have developed a reputation for it. People come to me online for recipes and tips on getting motivated to exercise. They also come to me for information on lifestreaming and making websites, since I spend so much time talking about those things. A lifestream allows others to see a more accurate reflection of your real life self. Your passions, idiosyncrasies and expertise shine through in a robust lifestream, and invite others to engage and share their own opinions.

4) *Archiving and backup*: By importing my published content from other sites into my own database, I have a searchable record of my activity. Even if my accounts are deleted, my data will remain in my possession.

5) *Revealing the invisible*: We create unexpected relationships: sharing problems, failures, project progress, or milestones allows other people to offer advice, input, or resources that might never be shared otherwise. We can explore environmental impact: services like Dopplr uncover carbon footprint based on reported travel. We can examine

unfolding social systems: shared calendars and locations allow one to view underlying social connections taking place in real life. And we can reveal lifestyle patterns: calorie trackers, exercise records, and purchase histories allow one to monitor health and consumption habits to achieve weightloss or budget goals.

Hurdles in the system of lifestreaming:

1) *Technical limitations:* My preferences for online services and software change constantly. As soon as I get comfortable in one lifestreaming workflow, something usually comes along to disturb it. For example, my Posterous account has recently stopped posting to my Twitter account accurately. Since one of the main reasons I use Posterous is to update my social networks, I might have to find a replacement service in the near future. Additionally, installing software on a server and using databases can be quite daunting.

2) *Time and motivation required:* The acts of lifestreaming and maintaining a lifestream website require a lot of time. I spend a few minutes of each hour documenting my activities, and another hour or so a day maintaining my website and services. In my experience, instantaneous documentation of the minutiae of daily life has a profound psychological effect. I am often asked if lifestreaming interferes with actually living life, but I find it slows me down and forces me to appreciate banal, every day activities. Lifestreaming helps me live “in the moment” by documenting and actively observing the moment. By documenting the things and experiences I tend to take for

granted, I feel deep gratitude and learn to see things in different ways. I consider lifestreaming to be a critical tool for self-development, and the investment of time seems comparable to journaling or keeping a diary.

3) *Revelation of personal information*: Some of the things one might post online can get one fired from a job, divorced from a spouse, or in trouble with the law. A lifestreamer must constantly think about the potential impact of public documentation.

4) *Filtration of stream for viewers*: This first lifestream website was very difficult to filter by time frame (such as month or year). It was also hard to find long form blog posts in a sea of Twitter and Flickr updates.

5) *Collection of conversations in one place*: A lifestream does not usually archive comments on Facebook or other social networking sites. Much of the conversation about my posts occurs on third party services, not on my lifestream site. Losing important conversations into the depths of Facebook is unpleasant, and I hope to find a way to archive such interactions permanently on my own server.

6) *Long term privacy issues*: One can not know how a lifestream will be interpreted by future employers or friends. To circumvent this, I suggest not publishing anything one would not want published on the front page of *The New York Times*.

7) *Quantity versus quality*: This iteration of my lifestream was focused on quantity, which degraded the quality of the reading experience. I believe it is imperative to meticulously track areas of life that one wants to improve, which is why I religiously document my food intake. My food photos are not necessarily always valuable to someone else, though they are to me. But to gain a readership, greater care needs to be put into collection and display of large quantities of information. With the Sweetcron software, it was too difficult to read and process each individual post. The resulting effect of displaying so much information on one page was that the details of each post combined together to become one indistinguishable texture.

I identified many other problems with lifestreaming. How can we verify the truth of information published online? How might online activity be credentialed? How do we know when an individual is publishing, as opposed to a corporation or marketing scheme? What are the protections against intrusions?

Experiment conclusions:

The problems I found are not unique to lifestreaming, but to online communication in general. The Internet has great communicative potential, which interests me greatly as a designer. Like books or posters, the Internet is a medium that can tell a story or influence decisions. But the digital nature of the World Wide Web makes communicative possibilities vaster and potentially more wide-reaching,

since we can have infinite digital copies of information as opposed to a limited number of physical books or posters.

We can look at past technologies to begin to seek answers to the questions online communication creates. We rely on reputable publishers and duplication of scientific results to verify the truth of information inside books. We gauge academic output with peer review, conferences and course evaluations to credential scholarly activity. We often can not tell if there is a corporation behind a seemingly innocent, grassroots publication, and rely on journalists and the media to investigate. We create the national Do-Not-Call list and Caller ID to protect ourselves from unwanted phone calls. These brief examples of how we adapt to technological change are applicable to Internet communication.

The uses of lifestreaming—accountability, process and failure documentation, branding, archiving, and revealing the invisible—are compelling. Combined, these factors create an environment conducive to control over individual development and deliberate decision-making. After this experiment, I began thinking of lifestreaming as a process for improving quality of life, but my evidence was anecdotal, and I did not have concrete data of how my life had improved.

Social impact: what are the implications of lifestreaming on society as a whole?

Many systems exist in modern society that control portions of daily life:

the government, the economy, large corporations, school systems, the food industry, healthcare. Media, advertising, and lobbyist biases make it difficult to discern manipulation or misinformation. Talking publicly about one's experiences can reveal the influence of large social systems on daily life to oneself and others, and can enable groups of people to form communities of action.

The screenshot shows a web browser window with the address bar displaying <http://jessicamullenslifestream.com/finance/?p=3891>. The page title is "financial hygiene (#5) | Jessica Mullen's financial goalstream". The website header features the title "jessica mullen's lifestream" and an RSS icon. Below the header, a navigation menu lists: "The Popular Podcast: video podcast about lifestreaming in Austin, TX", "Financial goalstream: savings & income generation", "Mental & Physical Health goalstream", "Witch goalstream: gathering personal power", "Virtual Worldstream: Second Life goals & experiences", "Design & Teaching: a portfolio of work and experiences", and "Research wiki".

The main content area features a yellow banner for the post "financial hygiene (#5)" dated "2009 NOVEMBER 23", written by Jessica Mullen. The tags are "bills, case studies, rent". The post content includes a list of steps:

1. Set a timer. 32 minutes, or 6a.
2. Check paperwork. Bills? Notices? Unopened mail? Sort, pay, and share.
well, at least I located all of the paper... going to have to take this stack to school. Which reminds me, I need to check on Macworks on the status of my Powerbook. I left it with them over a week ago. Not very pleased with their service. Call: 512-323-6666
3. Check email inbox for 'starred' emails of due bills. Pay and un'star'. Document.

A photo of a person looking at papers is included in the post. The right sidebar contains sections for "FOR YOUR UPDATE PLEASURE" (RSS Feed, Email Updates, Twitter), "START HERE" (About, Manifesto), and "POST CATEGORIES" (case studies, conceptual, financial lifestream, income generation, meeting recap, mobile posts, product, projects, time saving).

Figure 4: *Financial Goalstream*

Financial Goalstream Experiment (December 2009 | <http://jessicamullenslifestream.com/finance>)

Questions:

Presentation: what are the boundaries of privacy in a lifestream design?

Usage: can a lifestream be used to achieve a specific goal?

Social impact: what might the effect of financial lifestreaming be on society as a whole?

Methods:

After maintaining a general lifestream website, I wanted to devise an experiment that might demonstrate the value of lifestreaming more explicitly. I chose a goal I wanted to achieve (to understand and simplify my personal finances) and created a lifestream site and workflow to visualize, measure and manage all progress made towards the goal. I used this concept of 'goal-oriented lifestreaming' (or 'goalstreaming') to direct the nature of my updates.

My lifestream workflow for this experiment:

Visualization

- Document real life financial activities with photos, videos, and text.
For example, I photographed bar tabs, trips to the ATM, and stacks of paper mail piling up on my desk.
- Screengrab online financial transactions to capture transaction numbers and to create a third party verification system, since I do not

print these transactions. Obscure account numbers to deter identity thieves.

- Post documentation and relevant financial emails to social networks and goalstream website.

Measurement

- Hook up various bank accounts to third party money management system, Wesabe, for a view of the big picture and budgeting tools.
- Use services such as Daytum.com to track shared expenses.
- Utilize iPhone apps for monitoring budget.

Management

- Write longer posts in Wordpress blog to synthesize meetings, critiques, online community feedback, and to evaluate project progress.
- Review past posts for new insights.
- Ask for specific information or feedback and announce updates on Twitter.

Results:

Presentation: what are the boundaries of privacy in a lifestream design?

Some privacy is necessary, especially when it comes to account numbers. There are serious privacy issues with financial lifestreaming: potential credit fraud, unwillingness to share actual dollar amounts in accounts, and a need exists for private storage of documents such as bank statements.

Usage: can a lifestream be used to achieve a specific goal?

A lifestream can be used to achieve a goal when approached with: (1) a workflow for updating and sharing one's goal-oriented lifestream website and (2) a lifestream hygiene routine to regularly monitor progress.

The workflow I developed for updating my goal-oriented lifestream became my overarching lifestream design methodology. I found that designing specific aspects of one's life (in this case financial) through lifestreaming can be achieved with the following steps:

1. Document daily activities that are working towards specific goals or projects (e.g., weight loss, saving money, improving athletic endurance).
2. Measure progress towards goals using online tools to make tracking easier (e.g., calorie counting websites, financial tools such as Wesabe, iPhone applications that track fitness activities using GPS).
3. Publicly share documentation to get community feedback, remain accountable for choices, and help others in similar positions.
4. Grow reputation and confidence by keeping a public record of progress on a lifestream website.
5. Identify patterns and systems that are interfering with growth (e.g., the corn industry contributing to weight gain by selling the corn

syrup in soft drinks;¹⁴ credit cards creating debt; work restrictions preventing exercise). Attempt to monetize what is learned with premium lifestream content subscriptions.

The idea of monetizing a lifestream itself was inspired by author Tim Ferriss—a pioneering “lifestyle designer” who provides instructions on creating an online business that can run on autopilot. Ferriss believes in living the life you want now, instead of waiting for retirement. He suggests doing this by selling digital information products to create automated income.¹⁵ Ferriss led me to combine financial interests with lifestreaming interests, resulting in the implementation of “premium content” in a lifestream, where people pay to subscribe to certain types of lifestream content.

By having a premium subscription section of a lifestream, it is possible to make money from posting to a lifestream. In my experience this model has not been wildly successful but it holds great potential for individuals who might discover the ideal “premium content formula”.

I developed a lifestream hygiene routine to address regularly occurring financial concerns. I made weekly blog posts that responded to the following:

14 Lustig, Robert H. “Sugar: The Bitter Truth.” Lecture, University of California Television from UCSF Mini Medical School, San Francisco, July 27, 2009.

15 Ferriss, Timothy. *The 4-Hour Work Week: Escape 9-5, Live Anywhere, and Join the New Rich*. Unabridged ed. New York City: Blackstone Audio Inc., 2007.

1. Set a timer.
2. Check paperwork. Bills? Notices? Unopened mail? Sort, pay, and share.
3. Check email inbox for 'starred' emails of due bills. Pay and 'un-star'. Document.
4. Go through receipts. Add shared expenses to Daytum account, a website designed for self-tracking.
5. Check balances at Chase twice, Citi, Discover, student loans. Make appropriate payments, screen shot often.
6. Check calendar for upcoming due dates or milestones.
7. With any remaining time, log into Wesabe and/or Mint and tag expenses, work on specific projects, etc.

When creating the routine, I considered the following:

- set timers to keep your updates efficient. How long will this post take to write?
- document your efforts in detail. What digital artifacts can I extract from this?
- use services to measure your data. What can I quantify objectively?
- set goals based on your results. Where can I improve my habits?
- reflect and refine your process. How can I grow from what I've learned?

Conclusions:

I found developing a lifestream hygiene routine significantly reduced my financial stress levels. After performing the lifestream hygiene routine a few times, I began to identify larger financial projects that wouldn't fit into my weekly posts. I started to keep a list of these major projects, and challenged myself to complete them before a specific deadline. Completing these projects freed me to start thinking about income generation and investment, not just damage control.

Although there are privacy issues that arise with sharing any information online, the primary value of goalstreaming is that it is public. By sharing our lives with others, we are motivated, we are held accountable for what we say, we receive tangible help, and we create a sense of 'being in it together.' And as one makes progress towards her goal, she becomes an expert on the subject for others to learn from with a portfolio of work to prove it.

It would have been helpful if I had more accurately quantified my data for this experiment from the beginning. I would like to know exact amounts of time spent on the experiment as well as dollars saved. I also would like to have recorded mood more frequently.

Social impact: what might the effect of financial lifestreaming be on society as a whole?

The fact that one may need to create a lifestream to manage financial life can be seen as a symptom of the debt economy we live in.

Complications in regard to finances are due in part to borrowing money, which is a common theme for many people. By publicly posting about my financial life, many people commented about their own financial situations. They were in remarkably similar situations to my own, making the impact of the economic crisis visible. Many of us are taking a step back to take an honest look at our country's financial meltdown. Though uncomfortable, it seems we may be ready to stop lying to ourselves about the dangers of borrowing money. Including financial information in one's lifestream may be a way for people to begin evaluating themselves and facing the results of their choices.

A financial lifestream may also be a method for subverting the financial industry in the US. By publishing financial information, we may regain control of finances by paying cash and living within our means. We do not need to borrow money to live a life someone else said we deserve.

After extracting a step-by-step life design methodology from this experiment, I wanted to test the methodology again on the design of my health, while further refining the presentation of the lifestream website.

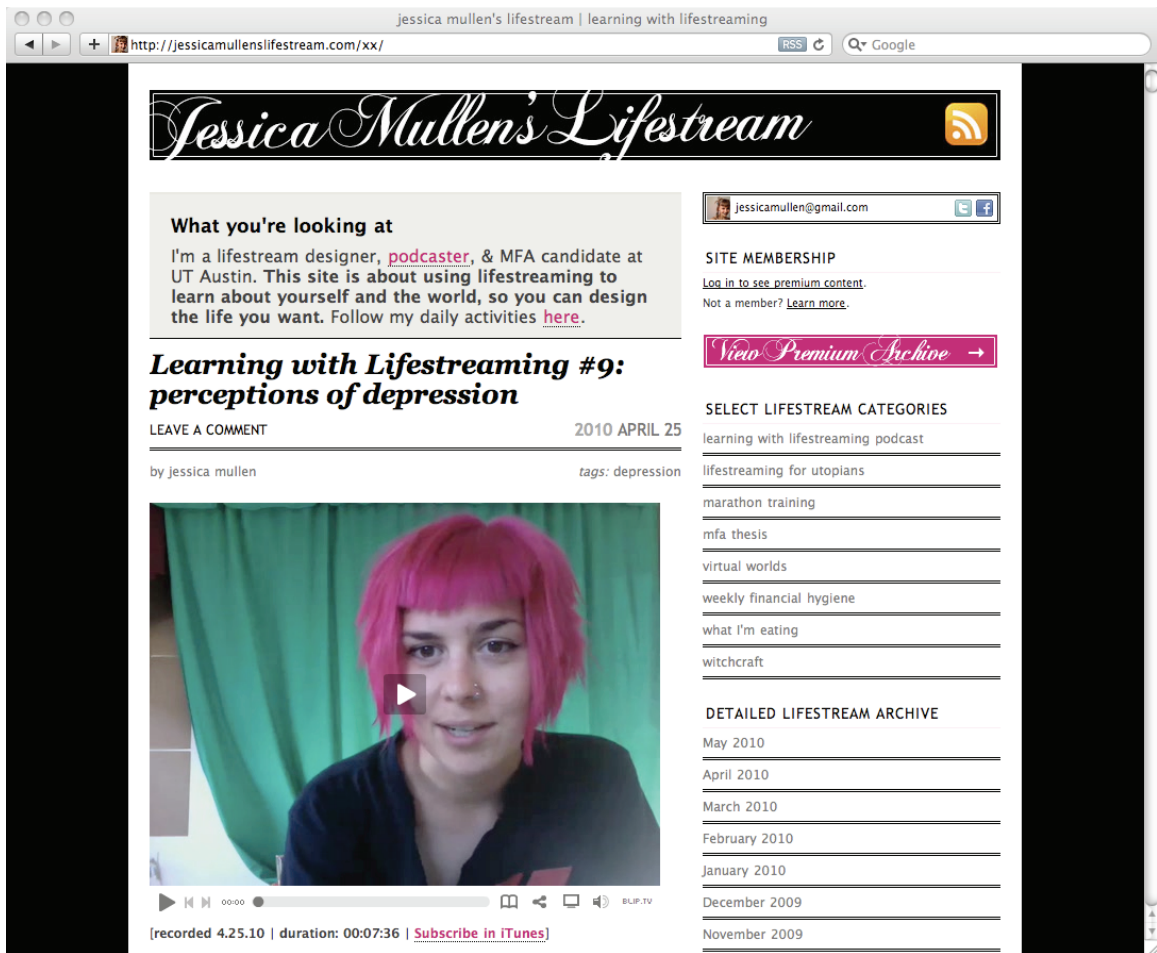


Figure 5: Jessica Mullen's Filtered Lifestream

Jessica Mullen's Filtered Lifestream Experiment (January 2010 | <http://www.jessicamullenslifestream.com>)

Questions:

Presentation: can information overload be addressed?

Usage: can lifestreaming be used as a methodology to design a healthier life?

Social impact: can lifestreaming improve the health of society as a whole?

Methods:

The final iteration of my lifestream website, this version displays photos and posts in a large size (instead of thumbnails). This site emphasizes the importance of each and every update—there are real reasons to update, not just, “Look at me!”, but “Here is a meal I ate that cost \$7.95 and contained 900 calories. Would you like the recipe? Do you have healthier suggestions?”

The website also includes a premium subscription section, where visitors can pay a fee for access to more lifestream information. The premium subscription includes risque imagery, private video and text journal entries, advanced lifestreaming and design lessons and tutorials and design source files.

To populate this lifestream website and social media services with posts, I use a specific documentation process. I record my daily life with different applications on my iPhone. I email the photos, text, or videos to Posterous, an information conduit service. Posterous takes my documentation and forwards it to my lifestream website and my social networks like Facebook, Flickr and Twitter. I also write longer blog posts on my laptop for my lifestream website, coauthor a podcast, and occasionally manually update my statuses on Facebook and Twitter.

My final lifestream site design experiment became an investigation of lifestreaming as a life design methodology for wellness. I wanted to test how publicly monitoring my diet, exercise, finances, lifestream design work, and spirituality might be combined with my social network, in order to make me more accountable for my actions, increase my self-discipline, and strengthen my reputation. In doing this, I might also be better able to recognize and eradicate the patterns and social structures that negatively impact my life. By addressing these main categories in my life, I hoped to increase my overall wellness.

The categories I chose to monitor correspond with four of the six dimensions of wellness, which are emotional, intellectual, social, spiritual, occupational and physical.¹⁶ The financial category tracked my expenses and income as well as any projects related to finances. This category I map to the occupational wellness dimension. The lifestream category “lifestream design” maps to the intellectual dimension, being the creative and intellectual work that keeps my mind active. Diet and exercise correspond with the physical dimension of wellness, and spirituality clearly maps to the spiritual dimension of wellness.

I chose to use lifestreaming to address my personal wellness because of my dissatisfaction with my diet and stagnation in my exercise regime. By focusing on multiple dimensions of wellness, I hoped to achieve a more balanced life. Instead of obsessing over weightloss, I wanted to achieve

¹⁶ Hettler, Bill. “Six Dimensional Model of Wellness.” National Wellness Institute. www.nationalwellness.org

a healthier and more sustainable state of being. I focused on only a few categories, because attempting to track every aspect of my

life is not sustainable. It takes too much time and is too psychologically demanding.

Results:

Presentation: can information overload be addressed?

I removed all lifestream posts aside from longer writings and videos from my lifestream homepage in an attempt to deal with the deluge of content I create every day. When a first-time visitor arrives at my site, I did not want her to be overwhelmed by pages and pages of food photos and exercise records. I wanted her to come across my more thoughtful and considered posts on lifestream design and other topics I am passionate about. The visitor could then view the archive to visit the chronological stream of short updates once she has digested the purpose of the website. Filtering a lifestream is a way to control first impressions. It is different from editing in that the cut material is still publicly available, just not immediately visible.

I believe this model will work well for lifestreamers. Like blogging, it emphasizes longer form thoughtful content, yet it is able to draw from a vast well of lifestream updates to illustrate points made in blog posts and video or audio podcasts. This method of filtering a lifestream might be particularly useful those who wish to develop a larger readership. As one gets more comfortable with lifestreaming, it is natural to want

to capitalize on the information the person is providing. By learning through lifestreaming, the lifestreamer creates meaningful learning experiences for viewers. On my lifestream site, I now have a podcast called *Learning with Lifestreaming* and I make blog posts under the heading of *Lifestreaming for Utopians*. I am trying to hone my main page content into informative and useful postings that can grow my readership and help others learn.

Lifestream filtration is absolutely imperative to make a more sophisticated experience for the lifestream reader. Lifestreaming is a process of publishing, then filtering. The publishing does not have to always be the main focus—once one develops a workflow and is passionate about what one is documenting and learning, then it is much easier for the lifestreamer to provide manually filtered content designed for reader consumption. By suppressing the majority of my lifestream updates from my main homepage on my website, I am motivated to create more thoughtful, long form, reader-friendly content more regularly.

Usage: can lifestreaming be used as a methodology to design a healthier life?

The implementation of the life design methodology focused mainly on diet and exercise. The major changes were a switch to a vegan diet, and training for a marathon. I documented my food intake, measured calories and nutrition, shared the data, and received feedback about recipes and suggestions for improvement. After recognizing how dairy

and corn syrup were particularly problematic to my health, I switched to a vegan diet in December 2009. For exercise, I documented my bike rides and shared GPS maps of my routes. This led to suggestions to take up running. Vehemently against such strenuous activity at first, I became convinced by friends in my social network to try it. I began marathon training, and through sharing about my training process, learned “how to run.” Learning to run involves eating right, following a training schedule, stretching and cross-training, wearing appropriate clothing, and discovering places to run. The learning process was made much easier by sharing my progress, problems and successes online.

Lifestream design, spirituality and finances were documented, but with less successful results. I discovered that in my particular case, physical health was the most important aspect of wellness to address first.

Conclusions:

Filtering and categorization were the most significant realizations in terms of lifestream design. From the beginning of my lifestream experiments, organization and hierarchy was problematic because of the amount of updates a lifestream creates. Confining lifestream updates to only information relevant to pre-determined categories keeps a lifestream focused and prevents it from overwhelming the creator with a sense of needing to document everything. Filtering mundane posts out of a lifestream home page provides the lifestreamer with more motivation to create long-form, thoughtful content, and better controls the reader’s first impression.

Social impact: can lifestreaming improve the health of society as a whole?

As an individual attempts to improve her health via public documentation, other people watch, learn, and give input. As one person begins to educate herself on a topic and make progress towards a goal, it can motivate others to do the same. For example, a person may try to eliminate high fructose corn syrup from her diet. After learning that corn syrup is in most processed foods, she may begin discussing the government subsidies that make this possible.

If more individuals learn about corn syrup and where it comes from, they may choose to stop purchasing products containing corn syrup. This behavior may spread memetically, forcing corporations and the government to come up with healthier alternatives to meet consumer demand.

Instead of feeling helpless against the food industry, an individual may subvert the system by tracking and managing her diet online. Sharing this information online makes it easier to measure, promotes accountability, and contributes to a growing body of public knowledge that may create system-wide change.



Figure 6: *Jessica Mullen's Lifestream Exhibition*

Jessica Mullen's Lifestream Exhibition Experiment (May 2010)

Questions:

Presentation: how can a lifestream be displayed in physical space without a computer?

Usage: what can a physical presentation of a lifestream show us that a digital lifestream cannot?

Social impact: can displaying a physical lifestream effectively communicate the potential of lifestreaming to people put off by the computer?

Methods:

To illustrate the idea that lifestreaming can be a life design methodology for wellness, I chose to print the majority of my lifestream and wallpaper a room with it for my MFA thesis exhibition. The exhibition was intended to reveal the enormity of published material in my lifestream.

I chose to print and categorize my lifestream posts so that I could visualize how much time I spent on each category, and identify milestones along the way. I categorized the posts by placing a different transparent layer of color on each category of posts. Posts that were related to food were colored yellow. Posts related to spirituality were colored purple. Posts about exercise were coded red. Financial posts were green. And lifestream design posts were covered with a teal color. I also hoped to demonstrate that by lifestreaming, I was able to direct the path of my life in specific ways for each lifestream category.

Results:

Presentation: how can a lifestream be displayed in physical space without a computer?

Deciding to print my lifestream was only the first step to creating the installation. Given the vastness of data I had, I needed a relatively inexpensive printing method. I decided to use Adobe Acrobat Pro to make PDFs out of my lifestream website, then I printed the PDFs on 8.5x11" paper on my home Canon PIXMA ip4200 inkjet printer. Printing at home gave me complete control over the process. I printed over 4000 pages of lifestream posts, and arranged the sheets on the gallery

walls in reverse chronological order, reading back in time from top to bottom, left to right. I called out milestones such as “started eating a vegan diet” and “began training for marathon” with paper flags pinned to the appropriate moment in time. The milestones were effective in displaying the path my life took because of lifestreaming; after several posts discussing the troubles I was having with the food industry, I took action by going vegan.

Usage: what can a physical presentation of a lifestream show us that a digital lifestream cannot?

After hanging my printed lifestream in the gallery space and seeing the entire thing at once, I realized that the majority of my lifestream updates are about what I’m eating. This was disturbing to me initially, because I had hoped for a more well-rounded display. But as I thought about it, I realized it was an ideal result. Eating is something everyone does, usually multiple times a day. What we eat affects every single area of our lives, from our health to our self-esteem to our productivity. For me, figuring out how to eat right was the first step I needed to take on my own path to wellness. I am pleased to have the lifestream installation communicate to other people the importance of food awareness. The obesity epidemic in our country is caused by government subsidies of lucrative, but potentially unhealthy foods such as meat, dairy, and corn syrup. The obesity epidemic will not subside until citizens change their eating and purchasing behavior and government positively influences how we feed ourselves with legislation.

Conclusions:

The lifestream gallery installation did not include every post, because I had to remove “uncategorized” posts to fit within the confines of the exhibition space. It was not until friends and family had gathered in the space, that I realized a category, previously labeled “socializing posts” was not represented. I now realize that the category, if renamed “relationships”, might map to the “social” dimension of wellness and therefore become an integral component of a holistic lifestreaming categorization system. By ignoring the social aspect of my lifestream, I shut out all the important social interactions.

Social impact: can displaying a physical lifestream effectively communicate the potential of lifestreaming to people put off by the computer?

Discussing the installation with visitors at the gallery opening showed me that the installation helped people better understand exactly what a lifestream is, but did not necessarily make them want to lifestream themselves. The large amount of food photos in particular created discussion of how mundane it can be to see what other people are eating. The food photos were effective in that manner though—it seemed like an effective way to begin a conversation about the issue of healthy eating, without having to pass judgement on the visitor’s own eating habits.

Lifestream statistics

The easily extractable numbers from my lifestreaming experiments are below. My hope for future explorations is to collect much more data (i.e., average daily calories by month, average calories burned by day, sleep statistics, meditation time), but automatically. Tracking numbers manually is tedious and prone to errors.

6,783 photos published since 08/08

8,091 tweets since 04/08

224 video podcasts recorded since 06/08

1,620 articles read and shared since 08/08

158 average number of hours a month spent on computer

553,543 calories eaten since 07/09

42,505 calories burned exercising since 11/09

4 months, 19 days eating a vegan diet

Conclusion

The U.S. is having a wellness crisis. Our major functions as a collective body are sickly and dilapidated. Specific symptoms such as obesity, diabetes, laziness in cooking and transportation, and extensive legalized drug use, have specific causes: economic growth of fast food and drug company empires, healthcare providers for profit rather than welfare of the patient, factory production and waste leading to poor air and water quality. My experiments in lifestreaming seek to identify and draw attention to the hidden systems causing these problems, in hopes that individual efforts to change behavior can create massive social change in aggregate. We are in the middle of financial ruin, an obesity epidemic,

and environmental catastrophe. Our publicly funded educational system is a mess, we are addicted to stimulation, and fewer young adults belong to an organized religion than ever before.¹⁷ Our entire country might benefit from an initiative that inspires individuals to pursue whole life health and wellness.

I wish to augment David Gelernter's original concept of the lifestream, though not by suggesting a code-based or technical modification. I propose a theoretical shift which positions the lifestream as a holistic life design methodology for wellness. To design one's life is to creatively plan and execute a desired, habitual pattern language for living.¹⁸ By tracking and discussing daily habits and activities, we expose routine and patterns and are able to critically evaluate them. Making them visible and open to discussion is a step towards change and development. We can regain control and take responsibility for all actions having to do with wellness in one's life.

Making my financial life visible through lifestreaming addressed an aspect of my "occupational" wellness. By completing the *Financial Goalstream* experiment, I was able to become more well in that specific wellness dimension. I believe the results from the investigation could be replicated in a goalstream about any of the six dimensions of wellness.

17 "U.S. Religious Landscape Survey." Religion in American Culture -- Pew Forum on Religion & Public Life. <http://religions.pewforum.org/>

18 Alexander, Christopher. *A Pattern Language: Towns, Buildings, Construction* (Center for Environmental Structure Series). New York: Oxford University Press, USA, 1977.

So much of wellness stems from being disciplined to make good choices, and lifestreaming makes every decision matter.

I was able to generate some revenue through lifestreaming, which is promising for future explorations. I currently have three subscribers to my premium lifestream subscription (at \$9/month), approximately seven subscribers to my podcast subscription (at \$7/month) and have had modest success (less than \$1000) with donations from podcast viewers.

Throughout my attempts to monetize lifestreaming, my attitude towards money has changed. When I first began trying to generate Internet-based income, I was focused on “striking it rich”. But as I have implemented lifestreaming in my own life, I have come to appreciate the value of simple living. I want only to make enough money to pay my bills and debts, and a little for savings. I have no more delusions that there is easy money to be made through lifestreaming. But I do believe that with diligent work and transparency, lifestreaming may be a viable long-term income *supplement*.

Through this work, I discovered my passion is learning and taking responsibility for my choices with lifestreaming. Lifestreaming teaches me about myself and the world. And it is a way of being consciously observant and mindful. By documenting myself and the world, I learn and begin to see quantified behavior. What is most fulfilling to people is collaboratively learning and sharing about what they are most

passionate about.¹⁹ If everyone shared their daily lives, creativity, and passions online, we might begin to understand and relate to each other in ways not possible now. If we can learn through other peoples' experiences, we can make new connections that affect our own decisions.

As we become more connected to each other through the Internet, we increasingly become a single organism of information and action. The Internet may enable us to transcend reality as we know it, by connecting us together to form one entity with millions of individual perceiving nodes. Transparent, public and authentic communication of personal experience can have profound effects on the individual, and may encourage collective social action when a critical mass of behavioral change occurs. I call my lifestreaming practice "utopian lifestreaming", because I am aware of the risks and consequences of publishing so openly, but believe we can achieve a healthier and happier society by understanding the individual realities of every single person. Translating that understanding into language a computer can understand may contribute to the Technological Singularity, when transcending our biological limitations would mean a sudden, radical improvement of health for all.

19 Trunk, Penelope. "Bad career advice: Do what you love | Penelope Trunk's Brazen Careerist." Penelope Trunk's Brazen Careerist. <http://blog.penelopetrunk.com/2007/12/18/bad-career-advice-do-what-you-love/>

The future of lifestreaming

A third of all Internet users in the U.S. now post status updates on social networking services like Twitter and Facebook at least once per week.²⁰ Social networking allows people to feel connected to one another while they are away from friends and family. The clear separation between home/social space and free time, and work/professional space and time that is given in exchange for a salary is becoming blurred. The implications of this are companionship and a sense of belonging and security at all times, a certain escapism from one's workplace and even a swindling of "the man." Using social networking tools in the workplace makes sitting at one's desk more like spending time with friends, as opposed to being completely isolated from social activity while submitting to one's employers. Because of this, lifestreaming is becoming the norm online. The act of lifestreaming can be simply explained as sharing one's life online—but this should be distinguished from maintaining a lifestream website, which requires a little more technical skill and commitment.

Publishing information about our lives and the world we live in to the Internet is making machines smarter. Right now, web pages are designed to be read by people, not machines. An in-progress development for the World Wide Web, the Semantic Web is a technology for enabling computers to understand content, links and

20 Lardinois, Frederic. "One Third of U.S. Internet Users Now Post Status Updates Once per Week," Read Write Web, http://www.readwriteweb.com/archives/one_third_of_us_internet_users_now_posts_status_up.php

exchanges between people and computers. The Semantic Web may automate tedious tasks of trade and bureaucracy and create intelligent agents to assist our daily lives.²¹

Inventor and futurist Ray Kurzweil believes increased participation in media creation and consumption as well as technological advancement are swiftly leading us towards the Technological Singularity, meaning we build machines smarter than ourselves and enable humanity to transcend its biological limitations.²²

Lifestreaming may be a stepping stone to the Technological Singularity, by pushing computer science closer to artificial intelligence per David Gelernter's vision. The Semantic Web may also prove to be instrumental by providing machines with more digital data about the world we live in.

Looking forward, what might the legacy of lifestreaming look like? During his recent panel at South by Southwest, open web advocate Chris Messina spoke at length about Lifestreaming. Of note in his presentation was this quote from Digg founder Kevin Rose:

I can see a world where eventually my children will look back at my [lifestream] data and say: 'This is Kevin's story - this is where he was on his birthday 10 years ago, and this was his favorite

21 Berners-Lee, Tim. *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web*. 1 ed. London: Collins, 2000.

22 Kurzweil, Ray. "Ray Kurzweil on how technology will transform us." TED.com. http://www.ted.com/talks/ray_kurzweil_on_how_technology_will_transform_us.html

place to eat.’ Building that profile throughout your life and saving [that information] - I think that’s huge.²³

It is here that the true value of lifestreaming begins to reveal itself. In aggregate, billions of people, worldwide, updating their status will transcend what some may call a fad to become something much more meaningful - a massive archive of quantified human behavior. What might the world would look like if everyone was a lifestreamer? If we could quantify and experience the lives and unique perspectives of every person in the world, what understanding might we gain? If 6,000,000,000 people were to lifestream on a regular basis, not only might that trigger Kurzweil’s Technological Singularity, but enable anyone to instantly quantify all human behavior for any given moment in time. Power hierarchies as we know them would collapse. We could all effectively “take the pulse” of the world—and not just for marketing purposes!

23 Messina, Chris. “ActivityStrea.ms: Is It Getting Streamy In Here?.” Slideshare. <http://www.slideshare.net/factoryjoe/activitystreams-is-it-getting-streamy-in-here>

The Lifestreamers manifesto: a life design methodology

Utopian lifestreaming embraces living life in public. Utopian lifestreaming fills your needs by creating a life support system to guide the daily decisions that add up to form your life.

1. I will document my daily activities to work towards my goals, even when I fail to meet them.
2. I will gauge my health and resources with online tools instead of burying my head in the sand.
3. I will share my experiences with my community for feedback and accountability. I will observe the experiences of others and help where I can.
4. As my lifestream grows, my reputation and confidence will do the same.
5. I will find the invisible patterns and systems holding me back and publicly eliminate them from my life. I will profitably share my hard-earned knowledge.

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VITA

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