COPY RIGHTS

OPEN ORDERS OF GLOBAL INFORMATION

ABOUT PROVISIONS

Provisions Library is an art and social change research center initiated in 2001. Provisions uses art to present information and promote learning: to explore models of inclusion, equity, and connection. Working with a variety of individuals and institutions, Provisions discovers and amplifies new cross-cultural narratives, grassroots strategies, and open sources of knowledge. Provisions' library, public programs, and research opportunities support artistic, intellectual, and activist endeavors that explore social topics in contemporary culture. These include local, national, and international projects, such as public art projects, exhibits, residencies, forums, and publications.

Provisions Research Residencies were launched in 2011 to provide artists, scholars, and creative researchers access to the capital's unique wealth of archives, resources, and public spaces that speak to our political legacy and its social futures. Fellows from across the nation and within the capital build a

more robust and socially-engaged field of contemporary art and cultural scholarship through creative research projects.

Provisional Research is a digital journal that documents research and projects through open-access downloads. Provisions provides a platform for considering and reflecting on public process, with the goal of advancing art and social change in cognizance and consciousness.

Support is provided by Gaea Foundation, Andy Warhol Foundation, Open Society Foundations, Nathan Cummings Foundation, Lambent Foundation, CrossCurrents Foundation, DC Commission on the Arts and Humanities, Cafritz Foundation, and George Mason University.

Provisions Library
http://provisionslibrary.org

to the internet

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CONTEXT

Copy Rights Research Residency assembled four researchers-- Greg Bloom (DC), Nate Larson (Baltimore), Anne Elizabeth Moore (Chicago), and Tim Schwartz (LA) in Washington DC to investigate individual and collective authorship in the digital age. The three week residency invited creative and critical explorations of the ways in which reproduction and replication enable free expression, empower creative re-use, and mobilize social justice actions. The group considered the structure of mass digital communication systems, examined debates around media policy, and reflected on the future power of shared intellectual property. Their projects addressed the implications of universal access, digital connectivity, copyrights and patents, privacy, information regulation, and dissemination in this emerging field.

The fellows gathered in DC in January 2013, only a few weeks following the tragic suicide of Aaron Swartz, whose infamous JSTOR download at MIT incited a draconian response from federal prosecutors seeking to make him a high-profile case. The residency occurred as the internet seemed increasingly on a precipice of its possibility — still rife with potential for transforming society, but increasingly dominated by forms of commerce and bureaucracy that encroach on the radical potential of the open internet for democratic communication and free exchange. A generation who grew up threatened by a litigious entertainment industry were now innovating data-sharing solutions and income-generating models for media

distribution, building a culture of sharing to supplant untenable mass media monopolies and insisting on a free and open source for knowledge and information. Despite the efforts of data activists, almost daily the news profiled instances where digitally-based innovation and exchange were confronted by the enclosures of protectionism and privatization. Just a few months after the DC research period, whistleblower Edward Snowden leaked documents confirming the existence of PRISM, the NSA's massive data collection protocol, which under the Patriot Act authorized government observation and data-mining of digital and telecommunications messages of each and every citizen, confirming the suspicions of many and highlighting the contemporary communication gulf between the truth of the state and its auspices in efforts to protect its people.

The research fellows hosted a convivial and active exchange of Copy Rights ideas--both historically precedented and emerging on the daily news front. They met with representatives from the New America Foundation, the Media Democracy Fund, the US Patent Office, the Digital Cultures Program at UMD, and various hackers, attorneys, and policy wonks. In the end, their projects grappled with access, economy, and the social implications of internet policy and practice--offering examples of data encounters that open larger ideas about surveillance, gender, data, and information from economic, political, and social perspectives.

Photographer Nate Larson took everyone on a field trip to the National Zoo to monitor surveillance on the movements of caged animals downloaded ten years of daily surveillance footage from atop the Netherlands Carillon to consolidate into a ten-minute video depicting the flow of time, weather, and DC's changing scene, and made videos using a small drone borrowed from friends. Feminist, activist and writer Anne Elizabeth Moore investigated wage and gender disparities in the alternative publishing world through new comics, a news article, and an essay on the ubiquitous and oft-overlooked cultural item--the sanitary napkin disposal bag. Media artist and conceptual sculptor, Tim Schwartz researched patent lineages and furthered his work reclaiming individuals' capacity to access and re-distribute personal information from their Facebook accounts. Social theorist and DC activist Greg Bloom deepened his research on the Data Commons, an open-source wiki application intended to aggregate DC's social service resources. These research projects set precedent for further collaborations and explorations, engaging over 150 DC community members in conversations about our shared digital future.

As our access and capacity to produce information changes, our culture, especially American culture, is grappling with new ideas about knowledge itself--who it is for, what it can be, what it looks and sounds like, and who has access. As artists continue to use, respond to, and create works about the internet, they invent platforms and policies that feed productive growth,

sharing practices for using and exploring this new terrain
of knowledge production and sharing, and demonstrate the
dynamics of transparency, privacy, and capacity in this new
digital domain. The Copy Rights projects provide resources for
ongoing debate and consciousness-raising actions that determine
how information circulation and commodification delineates
democratic potential--taking lessons from past and present to
propose a more free and open future.

SURVEILLANCE

NATE LARSON
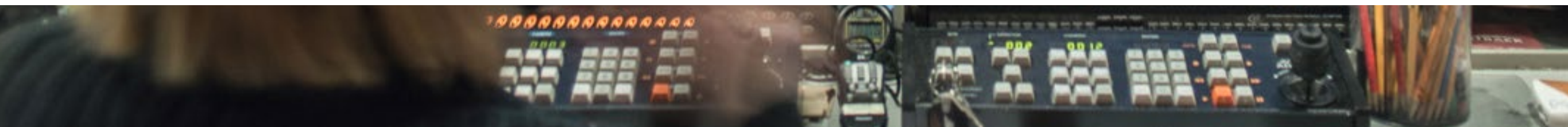
SURVEILLANCE NATE LARSON

Nate Larson created three major projects during the *Copy Rights* residency. *Ten Years in DC* is a short film created from public-access surveillance footage collected from a camera installed at the Netherlands Carillon monument that provides a changing, evolutionary view of the image of the Capitol Building.

Zooveillance is a photo series exploring the practice of animal surveillance at the National Zoo, which allows both website visitors and keepers to track the moves of its most famous creatures-- especially the popular pandas, gorillas, and lions. Photographing each camera in the zoo's environment, Larson presents the unnatural dynamics of spectacle in the zoo system, and observes the naturalization of cameras in this highly unnatural habitat.

Privacy Fences and *Drone Crash* are videos taken from drone-cams flown at parking garages and over the fence of Larson's temporary DC-neighbor.

These short films share the banal and extraordinary thrill of throwing one's sight with these newly-accessible flying robots, counterbalancing the serious political implications of this highly contested military technology with its more intimate and everyday potential for expanding the breadth and limits of our vision.

TEN YEARS

SEE THE VIDEO

ZOOVEILLANCE

DRONES

VIDEO ONE HERE

VIDEO TWO HERE

VIDEO THREE HERE

MISOGYNY
ANNE ELIZABETH MOORE

MISOGYNY
ANNE ELIZABETH MOORE

Anne Elizabeth Moore further expanded work on The Legislative Roots of Cultural Misogyny -- an ongoing investigation of the gendered, raced, and classed aspects of intellectual property and copyright law that explores how these legal biases contribute to and reiterate labor and wage inequities in cultural production. Moore collaborated with Provisions' intern Clay Harris to create three new comics for her Ladydrawers series. Ladydrawers is an affiliated group of female, male, transgender, and non-binary gender individuals who research, perform, and publish comics and texts about how economics, race, sexuality, and gender impact the comics industry, other media, and culture at large. Moore also produced a film--Sanitary Napkin Disposal Bag: The Movie--which documents visual iterations of the patent history of sanitary napkin disposal bags and provides visual accompaniment to a critical essay unpacking the dubious history and cultural implications of this under-analyzed product. Moore wittily demonstrates the patriarchal shaming of the menstrual cycle represented by this meta-commodity, while also examining the

precedent for men-dominated patent ownerships, premiering the example of men's work creating a capital-generating solution for the non-existent disposal problem of feminine hygiene waste. DC research also contributed to Moore's most recent article in Al Jazeera, The Next Great Copyright Act is Coming, which explores the current state of copyright reform and offers possibilities for a revised legal orientation that might diminish the misogynistic cultural bias that characterizes our cultural productions, compensation, representations, and copyright law.

LADYDRAWERS

LATER...

Big ol' ceremony celebrating Dr. Pederson's achievement of isolating FIV, patenting the purified virus and methods for diagnosing it— ALL BY HIMSELF!!

And to think you did it all alone! What a genius!

PARTY!!

Dr. Pederson— Is there an HIV, but for cats? Maybe, like a CIV?

Hmmm...

You BETTER COME IN RIGHT AWAY...

Here we go!

EXIT

Unlike Lillian Gilbreth 70 years earlier, Brown sued UC to be added to the patent as an inventor.

Cats! Prepare your courtroom attire!

She lost. In 1994, the court ruled that while her observations and suggestions were key to finding the virus, they did not contribute to the invention since she was not a scientist and did not actually work in the lab with the other scientists.

She appealed. The University of California eventually settled. In the agreement, Brown acknowledged—

UC is the exclusive owner on FIV patents.

It's not a misreading of patent law. This is what patent law says.

That's right!

It's just that the law doesn't offer certain key contributors acknowledgement in discoveries.

I can't see you!!

And Brown could not have played a more key role—in fact, there would have been NO discovery without her expertise.

sigh.

But patent laws are embedded in a set of beliefs about the way inventors work, and these beliefs themselves can be gendered.

(Indeed, Committee Reports accompanying the Patent Act of 1952 state explicitly that patents are intended to protect "anything under the sun that is made by man.")

That Marlo Brown's story is similar to hundreds of early black blues and jazz composers, denied copyright for their original contributions to music, should alert us to a general problem of bias in intellectual property rights law.

So, next time you run into some straight white dude, walkin' around actin' like he owns everything, consider all the ways in which he really does. Then let's start thinking about whether or not the laws that allow him to own everything should be changed.

c. mucha 06·13

Special thanks to Dan L. Burke's 2011 article "Do Patents Have Gender?" in the Journal of Gender, Social Policy, and the Law.

THE LADYDRAWERS
History of the World Part III:
"copywrongs!"

THE PROBLEM WITH A CONGRESS THAT HAS NEVER BEEN LESS THAN 82% DUDES, A 72-YEAR DELAY IN ALLOWING WOMEN TO VOTE, A PERSISTENT GENDER WAGE GAP, AND EVIDENCE THAT THE "AMBITION GAP"— THE MUCH-FLAGGED PROBLEM OF FEMININE SELF-ESTEEM—DOESN'T ACTUALLY EXIST IS NOT ONLY THAT THESE MARK PAST FAILURES. EACH ALSO CREATES A SEPARATE SELF-PERPETUATING SYSTEM OF INEQUITY—POLICIES THAT FAVOR MEN, A JOB MARKET THAT UNDERPAYS WOMEN AND A MYTH THAT BLAMES THEM FOR IT, AND THE PERCEPTION THAT A SEVEN-DECADE WAIT FOR ANY OF THIS TO CHANGE IS OK.

Thomas Stanley, PhD, is a musician and professor of ethnomusicology at George Mason University

WE CALL IT MISOGYNY, BUT THE ROOT OF IT REMAINS INVISIBLE TO US. WE DON'T "FEEL" LIKE SEXISTS. WE HIRE WOMEN, RAISE PAY, AND COMPLIMENT GIRLS ON MATH SKILLS. BUT NO MATTER HOW MANY STRUCTURES, POLICIES, AND SUPPORTS WE PUT IN PLACE, THE STATISTICS RARELY SHIFT. (THE INSTITUTE FOR WOMEN'S POLICY RESEARCH FOUND LAST YEAR THAT EVEN THE WAGE GAP, WHICH HAD NARROWED BY A HALF A PENNY EACH YEAR, HAS GONE STAGNANT IN THE LAST DECADE.)

THE TRUTH IS THAT THE WORK THAT WOMEN DO IS LESS VALUABLE IN THIS CULTURE THAN THE WORK THAT MEN DO.

THIS VALUE GAP IS WOVEN INTO OUR CULTURE THROUGH INTELLECTUAL PROPERTY RIGHTS LAWS. COPYRIGHTS, TRADEMARKS, AND PATENTS UNDERPIN ENORMOUS SWATHS OF OUR CULTURE, REFLECTING PRE-EXISTING GENDER BIAS AND PROPAGATING MORE OF IT.

Jennifer Carter lives in Lancaster, PA and runs a not-for-profit that fosters fair trade.

PASSED BY A 96% MALE CONGRESS, THE COPYRIGHT ACT OF 1976 ENSURES PROTECTION FOR EXTERNAL MODES OF CREATION BUT DOES NOT PROTECT INTERNAL PROCESSES. THIS IS WHY PEOPLE SAY, "IDEAS CAN'T BE COPYWRITTEN; MODES OF EXPRESSION CAN," BUT THIS ISN'T ENTIRELY TRUE. CERTAIN FORMS OF EXPRESSION AREN'T ALWAYS PROTECTED, AND THIS DIVISION IS GENDERED.

"Sifu" Abdur-Rahim Muhammad teaches and practicing Jow Ga Kung Fu and is the co-author of the graphic novel The Legend of Jow Lung

LITERARY, MUSICAL, AND DRAMATIC WORKS ARE ELIGIBLE, AS ARE PICTURES, GRAPHICS, SCULPTURES, MOVIES AND ARCHITECTURE. BUT COOKING, QUILTING, AND SEWING AREN'T LISTED, UNDER THE ARGUMENT THAT THESE ARE MADE BY GROUP PROCESSES, OR DOMESTIC WORK, AND THE CREATIONS ARE NOT INTENDED FOR PUBLIC DISPLAY. THEY'RE ALSO TRADITIONALLY FEMININE PRACTICES, AND THEIR INELIGIBILITY FOR PROTECTION HAS HAD THE CUMULATIVE EFFECT OF ALLOWING MORE OF THE CREATIVE WORK THAT MORE MEN DO PROTECTION UNDER THE LAW.

Lydia Prentiss is an artist and geographic researcher at the University of Maryland in College Park

HOW THIS AFFECTS OUR CULTURE ISN'T ALWAYS EVIDENT, BUT LOOK AT THE OFT-REHASHED STORYLINES OF ROMANCE NOVELS, FOR EXAMPLE—WHEN'S THE LAST TIME YOU HEARD OF A COPYRIGHT DISPUTE INVOLVING THEM? IN FACT, HOW MANY HIGH-PROFILE COPYRIGHT CASES HAVE YOU HEARD OF WITH FEMALE PLAINTIFS OR DEFENDANTS? GLANCE THROUGH MEDIA COVERAGE OF "ILLEGAL DOWNLOADERS" OR "COPYFIGHTERS" OR "PIRATES". IT MAY APPEAR THAT WOMEN ARE NEITHER AFFECTED BY NOR CARE

OTHER AREAS OF IP LAW AREN'T SO DIFFERENT. PATENTS REMAIN A PERPLEXING AREA OF GENDER INEQUITY, EVEN AS WOMEN ENTERED THE SCIENCE, TECH, AND ENGINEERING FIELDS: WOMEN HOLD 7.5% OF ALL PATENTS—AND ONLY 5.5% OF COMMERCIAL PATENTS.

BUT THINGS HAVE BEGUN TO CHANGE IN RECENT YEARS. AN OCTOBER 2000 REPORT IN CYBERPSYCHOLOGY & BEHAVIOR FOUND 50% OF MALE RESPONDENTS AND 30% OF FEMALE RESPONDENTS DOWNLOADED MUSIC ILLEGALLY. COURT RECORDS AREN'T PUBLICLY AVAILABLE FOR THE RIAA'S FIRST ATTEMPT TO TRACK DOWN AND SUE EVERY ILLEGAL MUSIC DOWNLOADER IT COULD FIND IN 2003—261 TOTAL— BUT BY 2009, THE RIAA NAMED ANOTHER 127 DEFENDANTS, 46% OF THEM HAD FEMININE NAMES. INDEED, A 2010 REPORT IN THE *JOURNAL OF BUSINESS ETHICS* FOUND MEN AND WOMEN BY THEN WERE EXACTLY AS LIKELY TO DOWNLOAD FILES ILLEGALLY. AND THE NATIONAL WOMEN'S BUSINESS COUNCIL FOUND IN 2012 THAT WOMEN HAD DOUBLED OWNERSHIP OF PATENTS SINCE 1990.

Alain Nu is a mentalist and author in Kensington, MD and the star of TLC's Mysterious World

YET WHILE WOMEN MAY BE JUST AS LIKELY AS MEN TO VIOLATE OR BE PUNISHED UNDER IP LAWS, TRADITIONALLY FEMININE PRACTICES AREN'T PROTECTED, ON THE OTHER HAND, WOMEN DO SHOW UP IN COPYRIGHT BATTLES ALL THE TIME—AS SUBJECTS OF THE SONGS OR IMAGES UNDER OWNERSHIP DISPUTE.

IT'S POPULAR TO CHARGE THAT INTELLECTUAL PROPERTY LAWS "STIFLE CREATIVITY", BUT THEY ALSO FOSTER GENDER INEQUITY.

SO THEN...

... FROM ALL THIS AWESOME DATA, WE'LL MAKE A COMIC.

Anne Elizabeth Moore worked with Clay on this comic during a Washington DC research residency on gender and IP law at the Provisions Library at GMU

Clay Harris is currently an artist-intern with the Provision Library. He teaches math, takes care of his mom, and teaches cartooning on weekends. He drew these portraits.

A LADYDRAWERS HISTORY OF WOMEN'S RIGHTS, PART IV: Feminine Hygiene & IP

CONSIDERING THE FULL RANGE OF CULTURAL PRODUCTION, THERE ARE VERY FEW AREAS ANYMORE THAT REMAIN EXCLUSIVELY FEMININE.

PROTECTION

FRESH

EXCEPT FOR FEMININE HYGIENE PRODUCTS.

THERE ARE ASPECTS OF THE SANITARY WASTE INDUSTRY THAT WE MIGHT CONSIDER REVOLUTIONARY!

(AT LEAST IN TERMS OF GENDER EQUITY)

BUT THEY'RE SORT OF, UM, MESSY.

WE'RE NOT TALKING ABOUT MENSTRUAL PADS OR TAMPONS...

Hello.

BUT WE'LL HAVE TO START THERE.

SANITARY NAPKIN PATENTS

THERE ARE 6,434 PATENTS FOR SANITARY NAPKINS

1926

Mr President WE WANT TO KEEP OUR NAMES AFTER MARRIAGE AND APPLY FOR LEGAL DOCUMENTS

Catamenial* bandages! We must know more!

LILLIAN GILBRETH WAS A MARKET RESEARCHER HIRED BY JOHNSON & JOHNSON TO COLLECT INFORMATION ON MODERN SANITARY NAPKINS.

*catamenial = menstrual

METHOD:

GILBRETH SPOKE TO AROUND 1,000 WOMEN OF DIVERSE AGES ABOUT MENSTRUAL BANDAGES.

□ AVAILABILITY
□ COMFORT
□ DISPOSABILITY
□ INCONSPICUOUS CLOTHING
□ PROTECTION

Women need more options!

Gilbreth's FINDINGS:

OVER 45 BILLION SANITARY PADS

USED BY

30 MILLION WOMEN

EQUALS

$ $ $ FOR JOHNSON & JOHNSON

[THESE NUMBERS HAVE GROWN SINCE 1926, OF COURSE.]

★ MARKETING CAMPAIGN ★

HANDMADE VS SANITARY + NAPKINS J&J HYGIENIC!

J&J'S GREATEST COMPETITION WAS HANDMADE MENSTRUAL PADS.

SIDE NOTE:

AT THE TIME, MARKETING WAS HEAVILY INFLUENCED BY ONE MAN: EDWARD BERNAYS

AND HIS SILENT PARTNER IN INVENTING THE FIELD OF PUBLIC RELATIONS: DORIS FLEISCHMAN

(FLEISCHMAN WAS NEVER CREDITED WITH HER CO-MANAGEMENT OF BERNAY'S FIRM.)

...BACK TO PATENTS!

$ $ $ $

more options!

THANKS TO GILBRETH'S RESEARCH, JOHNSON & JOHNSON QUICKLY OUTPACED OTHER FEMININE HYGIENE PRODUCT MAKERS, GENERATING PATENT AFTER PATENT.

RESULT

Feminine Hygiene **PATENT HOLDERS:** 94.5% MALE

Hey, you guys don't even use these!
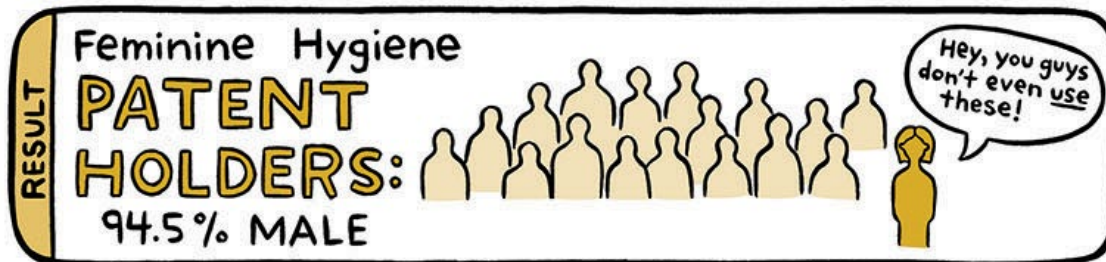
Written by Anne Elizabeth Moore

Illustrated by Laura Szumowski

A Ladydrawers History
OF WOMEN'S RIGHTS
PART V: Sanitary Napkin Disposal Bags

Some good news

LILLIAN GILBRETH (SEE PART IV) DID A REALLY GOOD JOB.

HERE'S HOW...

THANKS TO GILBRETH'S RESEARCH, SANITARY NAPKINS ARE AWESOME. CONSIDER THE FOLLOWING:

COMFORTABLE

DISPOSABLE

ABSORBENT

BIODEGRADABLE

ODOR-ABSORBING

UNNOTICEABLE

BUT WAIT, THERE'S MORE!

MENSTRUAL PRODUCTS TODAY ARE SELF-CONTAINED AND SPILL-PROOF FOR EASY DISPOSAL. LET'S DEMONSTRATE!

① REMOVE FROM UNDERPANTS

② ROLL 'ER UP

③ WRAP IN TOILET PAPER (OPTIONAL)

④ TOSS IN TRASH OR PUBLIC RESTROOM RECEPTACLE.

EASY, RIGHT?

WRONG! THIS CALLS FOR...

MORE PATENTS

THERE ARE IN FACT 3,978 PATENTS FOR "FEMININE PRODUCT DISPOSAL."*

ABSORBENT

ALL PURPOSE COATING

PATENTED

CONTAINERS

DIAPERS

BAGS

CUP HOLDERS

BREATHABLE FABRICS

SYNTHETIC COMPOUNDS

FRAGRANCES

ODOR CONTROL

BIODEGRADABLE WASTE

*ABOUT 50 OF THESE PATENTS ARE FOR SANITARY NAPKIN DISPOSAL BAGS.

INTRODUCING

Sanitary Napkin Disposal Bags

WHISK AWAY YOUR LADY WASTE, OUT OF SIGHT & OUT OF MIND!

BAGS
Sanitary Napkins
FRESH SCENT
BAGS
BAGS

THE INNOVATIVE NEW METHOD!*

① REMOVE FROM UNDERPANTS → ② ROLL 'ER UP → ③ PLACE IN SANITARY BAG → ④ TOSS IN TRASH OR PUBLIC RESTROOM RECEPTACLE. → CARE-FREE!

*NOTE: THIS IS NOT ACTUALLY AN INNOVATIVE METHOD.

☆ MARKETING CAMPAIGN ☆

"The Problem"

Ⓐ STOP WOMEN FROM FLUSHING ALL THEIR SANITARY PRODUCTS.

Ⓑ CREATE A CLASSY & DISCRETE DISPOSAL METHOD.

Ⓒ "SAVE THE ENVIRONMENT" [TRANSLATION: HIDE AWAY THE SIGHT & SMELL OF MENSTRUAL WASTE.]

The Solution:

PUT THE UNSEEMLY WASTE INSIDE ONE KIND OF CONTAINER BEFORE IT GOES INTO A LARGER RECEPTACLE FOR REGULAR GARBAGE.

TA-DA!
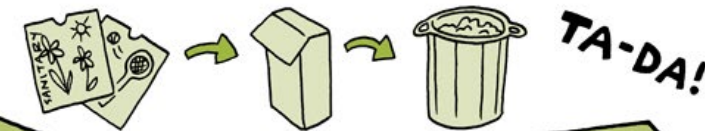
(THIS TYPE OF ADVERTISING IS INTENDED FOR THE PURCHASER, NOT THE USER.)

TAKE A CLOSER LOOK

HERE WE HAVE AN INTERESTING SITUATION: ON ONE HAND ARE SANITARY NAPKIN DISPOSAL BAGS - BAGS THAT PROTECT TRASH FROM OUR LADY GARBAGE.

ON THE OTHER HAND WE FIND...

GENDER EQUALITY!

IN PATENT OWNERSHIP

59% Female
41% Male

FOR THESE →

DISCRETE!

The Math

👤 44% HELD BY WOMEN

👤 30% HELD BY MIXED-GENDER TEAMS

👤 26% HELD BY MEN

Written by
Anne Elizabeth Moore

AND FINALLY, A NOTE ON
WASTE
THERE ARE, IN OTHER WORDS,
TWO FORMS OF DOMESTIC TRASH:

A

PROTECTIVE!

DOUBLE BAGGED!

B

SAUCE
COLA

Type A: COMMONLY REFERRED TO AS "TRASH."
Type B: WOMEN'S WASTE
(FROM WHICH TRASH MUST BE PROTECTED.)

Illustrated by
Laura Szumowski

SANITARY NAPKINS

WATCH THE SANITARY NAPKINS VIDEO HERE

AL JEZEERA

4/30/13

ALJAZEERA

The next great Copyright Act is coming

Comprehensive copyright reform will revitalise the public domain and value all creatives - even the females.

Last Modified: 25 Mar 2013 10:33

Anne Elizabeth Moore

Anne Elizabeth Moore is a Fulbright scholar and the author of several award-winning non-fiction books, including Unmarketable: Brandalism, Copyfighting, Mocketing, and the Erosion of Integrity (The New Press, 2007).

Women make up around 52 percent of all characters in fictions, but are twice as likely as male characters to appear naked - and only a quarter of them speak [Reuters]

On March 20, Register of Copyrights **Maria Pallante testified** before the US House of Representatives on the need to reform copyright law, currently outlined in the **Copyright Act of 1976**. This had been the first major update to copyright protection since 1909, but some considered it dated, even at the time.

Artists, lawyers, musicians, historians, librarians, pirates, authors and educators knew immediately, or quickly grew to see, that intellectual property rights laws - a body of legislation of which copyright is only the most visible part - were in drastic need of overhaul.

Concern crystallised once the **Digital Millennium Copyright Act** passed in 1996, a bill intended to extend traditional print publishing rights into the digital realm (and, by extension, throughout the world).

Photocopiers, home video recorders and the internet all challenged fundamental aspects of policies originally intended to protect creative labour. But the variety of creative labour considered worthy of protection has never been scrutinised.

"The law is showing the strain of its age," Pallente **said last week** at the Subcommittee on Courts, Intellectual Property and the Internet Committee on the Judiciary. She said:

> "[A]uthors do not have effective protections, good faith businesses do not have clear roadmaps, courts do not have sufficient direction, and consumers and other private citizens are increasingly frustrated.... It is both possible and necessary to have a copyright law that combines safeguards for free expression, guarantees of due process, mechanisms for access, and respect for intellectual property."

She was right. Copyright laws are a mess and need to change. The trouble has always been how.

Limit the 'term'

No one agrees on what is wrong with the legislation, a problem fuelled partially by so few understanding what it does. Copyright protects works that are said to be published: literature, music, dramatic works - as well as pictures, graphics, sculptures, films and architecture. Work intended for public display or use and created by an identifiable

or or set of creators.

right does not protect the idea behind a work, but only xpression of the idea. And much to the surprise of my chool students, the law does not mention commerce at only grants authors the right to distribute their work - ing, the right to decide whether to do so for money or

riginal intention of the law was to limit the term during an author retained exclusive control of a work to r a healthy and active public domain - a free house of ideas for artists who wanted to work more ly with original materials.

air use provision, too, is supposed to allow for the ation of copyrighted materials, but even fewer rstand the range of re-uses it covers - and several big fights have failed to uphold it in the courts at all.

Russia pushed to crackdown on copyright piracy

erosion of the public domain and the dwindling vitality of the fair use defence are both attributable to media rations that in recent decades have exerted louder and more repetitive demands for protection of their creations, as an extension of copyright terms.

eas the original US Copyright term was 14 years - reasonable to my mind, as an author - protection currently nds 70 years *past* the death of the author. (I do not have kids, so this strikes me as totally ridiculous.) And that t for mere humans: works of so-called corporate authorship are protected for 120 years after creation or 95 after publication - whichever comes first.

has led to the preposterous situation where the public domain - our cultural commons - **admitted no new works in** . It will be 2019 before any more works come under public ownership. And to make matters worse, *Golan v er ruled last year* that Congress can remove works that have already entered the public domain and place them under private ownership.

means to protect independent cultural producers, in other words, US copyrights are downright laughable. Yet the ems of copyright law in the US both extend wider and go further back than that.

r the Berne Convention, US copyright law is in place for US cultural production, wherever it is distributed. ng Berne is a prerequisite to membership in the World Trade Organization, which boasts 159 member states and seas international trade throughout most of the world.

a, art and entertainment are chief exports of the US - popular even if cheap or freely distributed. Even when d illegally, narratives tend to promote conspicuous consumption, suggesting and fostering a values system that urs the corporate at every turn, not unlike the legislation itself.

Copyright Act of 1976, however, defined cultural production fairly narrowly, which may be having an even bigger ct on the global economic condition of over half the population of the world.

ed by a 96 percent male Congress, the in-place copyright law does not list cooking, quilting, or sewing as ctable, under the argument that these works are neither intended for public use nor created by single authors. are domestic practices, often made by groups or with knowledge passed down over generations. Yet they are traditionally feminine acts of cultural production.

l frameworks

y be difficult to perceive how such gendered policy influences US culture today, but think about the most us feminine figures from the great copyfights of the last few decades: Roy Orbison's (or 2 Live Crew's) **"Pretty an"**, maybe, or Dan DeCarlo's character **Josie** (of Pussycats fame).

ider how often the insults hurled at romance novels, chick lit and chick flix - forms of cultural production aimed d often created by women - mirror those issues outlined in copyright law.

a created for feminine consumption is often called "derivative", "repetitive" and "unoriginal". Or glance through a

4/30/13

few news stories about **illegal music downloaders** or freedom of speech defenders and note how men are presented - as pirates, saviours, or activists - while moms and daughters and female viewers or listeners are often presented as innocent, or **witless**, victims.

In truth, studies show that women illegally download music just as frequently as men. **Or more frequently**. They certainly have greater economic incentive.

Women make up 51 percent of the US population, earn 77 percent of what men earn on average, and act as CEOs for only 2 percent of Fortune 500 companies.

Women make up 57 percent of the population living in poverty in the US, hold approximately 80 percent of jobs in the sex industry and 93 percent of those in domestic service work, two labour forces that come with low incomes and high rates of sexual or physical abuse and assault, which itself causes income losses of approximately $8m per year.

In policymaking itself, women hold only 18 percent of congressional seats, even after the historic 2012 elections, which came 92 years after women had secured the right to vote (and a full 72 years after the right to vote was first called for.)

The gender gap affects all of culture, but becomes most pronounced when we look more closely at who is paid - or valued - in the process of the production of that culture.

On average, women hold only 25 percent of all content creation positions across US media and make up only 29 percent of appearances in non-fiction US-created media (such as talking heads on news shows, or being quoted as sources in newspapers, etc).

Representations of women in the US only approach their actual population of it in fiction venues, where women make up around 52 percent of all characters, but are twice as likely as male characters to appear naked. And only a quarter of them speak.

Cultural bias

It is misogyny, clearly. But it has roots in a legal structure of our own design and can therefore be uprooted. Copyrights underpin vast swaths of our culture, both domestically and abroad, reflecting both a pre-existing cultural bias and propagating more of it.

Yet while the cultural work that women do is less valuable now than the cultural work that men do, this need not continue. The gendered basis of copyright law must be inspected, considered and addressed.

The next great Copyright Act Pallante calls for is possible, certainly: but it must value the input and practices of all cultural producers as labourers across all forms and media. The division between traditionally domestic and traditionally public works is as dated as the division between print and digital publishing and should be abandoned; the line between corporate and independent producers, however, remains clear.

Revitalise the public domain, roll back extravagant term limits and ensure all cultural production methods are offered equal protection. US copyright sets a standard throughout the world. Let's raise that standard.

Anne Elizabeth Moore is a Fulbright scholar and the author of several award-winning non-fiction books, including Unmarketable: Brandalism, Copyfighting, Mocketing, and the Erosion of Integrity *(The New Press, 2007). She teaches at the School of the Art Institute of Chicago. She held a 2012 UN Press Fellowship, does a monthly comics feature on gender and cultural production for* Truthout*, and contributes criticism to* The New Inquiry, The Baffler, *and* N+1.

Follow her on Twitter: @superanne

The views expressed in this article are the author's own and do not necessarily reflect Al Jazeera's editorial policy.

Source: Al Jazeera

4/4
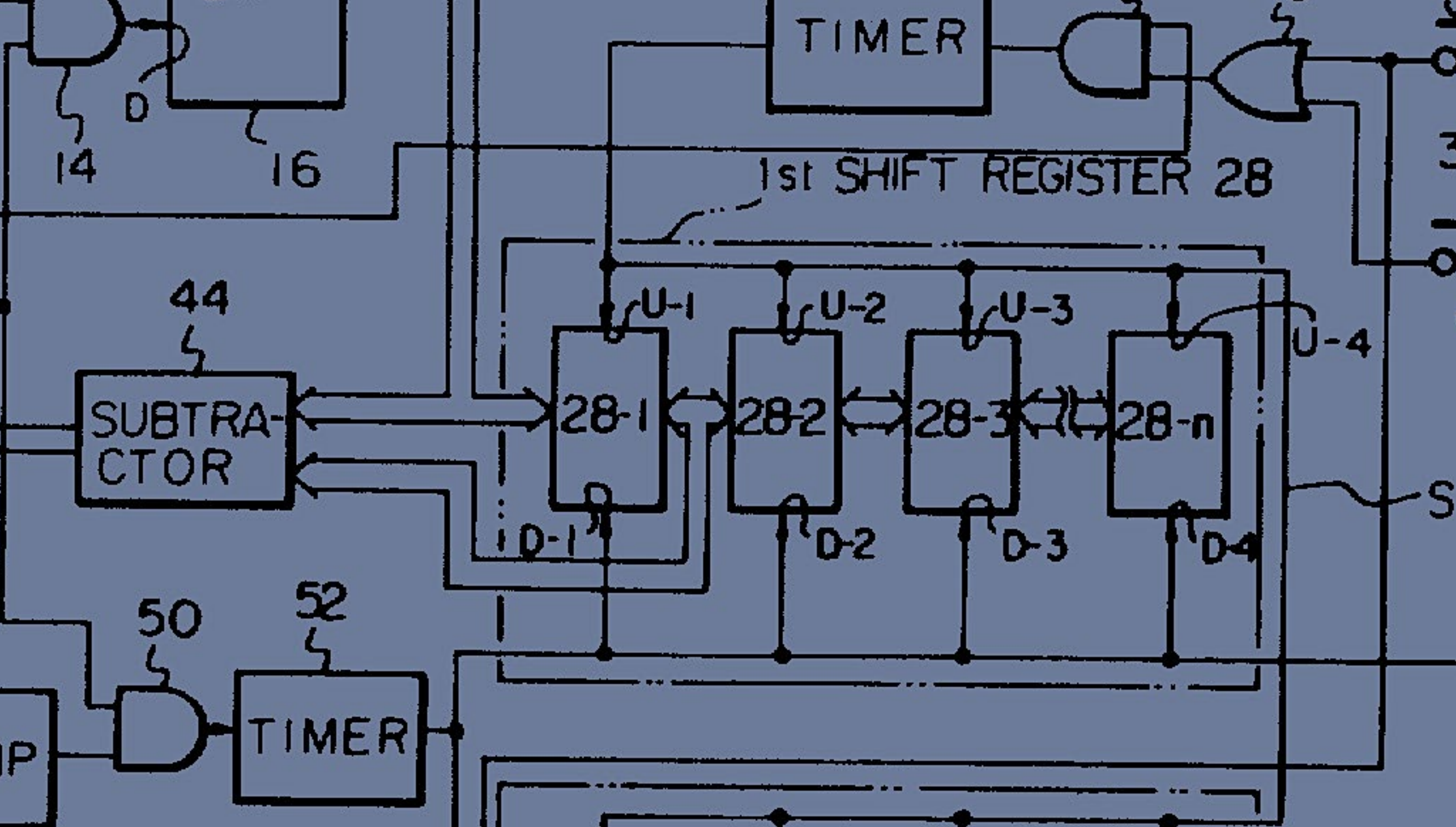
BIG DATA

TIM SCHWARTZ

BIG DATA
TIM SCHWARTZ

Tim Schwartz explores ways to create, copyright, and return new ideas to the public domain before they are controlled by private interests — in essence, trying to circumvent the intellectual property status quo in order to bring perspective to what data can and can't do. Schwartz's projects *Commodify. us*, and *Patent Lineage* investigate relations between past and emerging technologies to illuminate the shifting dynamics of innovation and intellectual property.

Responding to the lack of ownership rights in social media like Faecbook, Tumblr, and Twitter, which are now major platforms for content generation, the *Commodify.us* website enables users to download, save, analyze, license, and sell the data they create and store on social media sites. *Commodify.us* provides an alternative solution to critiques of the privatized world of social media, instead allowing users to re-possess the data they have shared with the world and monetize it just as the companies storing their content have done. In this way, *Commodify.us* offers an activist approach to the increasing commercialization of web contact and social media data--approaching this

trajectory as inevitable, it offers users and creators an avenue for personal response and action.

Patent Lineage explores the evolution of patented ideas through an exemplary tracing of the iPhone voice recognition software Siri. Schwartz notes that each patent must provide precedent for the invention, both as reference and to distinguish what is new about the patent contribution. The project establishes *Siri's* origin in the *Blowgun* and other distantly-related inventions. Schwartz's visual essay of this disparate genealogy challenges of big data assumptions and presumptions about relationship relevance and proxy. The lineage of an idea or the core tenets of innovation available to our instinctive knowledge and notions of core invention values can differ quite readily from the particular citations involved with the proof of product development for bureaucratic purposes.

Commodify.us and *Patent Lineage* both challenge and caution the blind excitement of the emerging 'big data' revolution, questioning the use-value and perspective of *Big Data*, and considering the contrast between our perceived and actual perspectives over our highy intelligent and intuitive selves and our inventions demonstrated through charts, tables, and data aggregates.

COMMODIFY.US

WATCH THE COMMODIFY.US PROMO HERE

PATENT LINEAGE

Despite the fact that the US Patent & Trademark Office (USPTO) and the system over which it presides is in dire need of reform, the archive of the USPTO offers an exceptional public resource for tracing patent history. The USPTO has diligently collected all patents since its 1790s inception. These documents can now be found on their online archive as publicly available PDFs. Extensive patent metadata is digitally available: including the patent application number, date, category, inventor, assignee, and, of particular interest, references to other patents.

In the 1940s the patent office began requiring all patent applications to reference previous patents that set precedent for the new invention. For example, if someone invented a new type of screwdriver manufacturing process, the author would list earlier screwdriver patents and other manufacturing method patents, allowing the office to clearly identify the new component.

Schwartz built a number of software programs and systems to gather, search through, and connect patents to one another based on the cited reference metadata. These programs create a database or a family tree for each patent analyzed. The sheer size of these trees is quite impressive.

Starting with a modern iPhone patent from 2012, Schwartz was able to establish a family tree of over 50,000 patents upon which this contemporary idea is based, working backwards through time to see the lineage of this technology. The lineage shown here in reverse chronology starts with a blowgun and evolves through 9 steps over 120 years into a newspaper delivery system, which morphs into computer systems for navigation, and finally ends up as a patent for Siri, the search assistant embedded in the iPhone.

When looking through these lineages, it becomes quite clear that ideas come from a variety of sources and combinations, not just from the list of cited past patents. Any one of the individual changes between patents makes sense, but when viewed from a broader, macro perspective the full evolution becomes harder to interpret. It is hard to say that the inventors of Siri were thinking about blow guns when they were working on a new digital search system. In fact, looking at the evolution of an invention doesn't quite make sense beyond the individual jumps.

This incident points towards one of the problems with large data analysis and what is currently being toted as the next big strategy scholarly and scientific application: "*Big Data.*" As our world becomes more digital, we produce and consume more data. With this comes an increased interest in understanding our behaviors based on the data we create and record. Data analytics can lead to false and overt simplifications made from data inferences like proximation, repetition, scale, and occurrence, not deep understanding and arrangement--conscious and unconscious--that can be perceived and intuited by human perspective alone.

As we move into the purely digital future we will be tempted to use simplified data to offer complex understandings. Tracing the blow gun to Siri, we see how the broad evolution of an idea over time takes small leaps from point to point as micro-shifts. *Big Data* has a tendency to present and interpret proximate relations as final outcomes, over-emphasizing affiliations that might in the end be permeations or transformations of a rather random thread of thought instead of a deep and persistent continuity of concept over time.

(No Model.)

W. M. BUNSEN.
BLOW GUN.

No. 429,499.

Patented June 3, 1890.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.
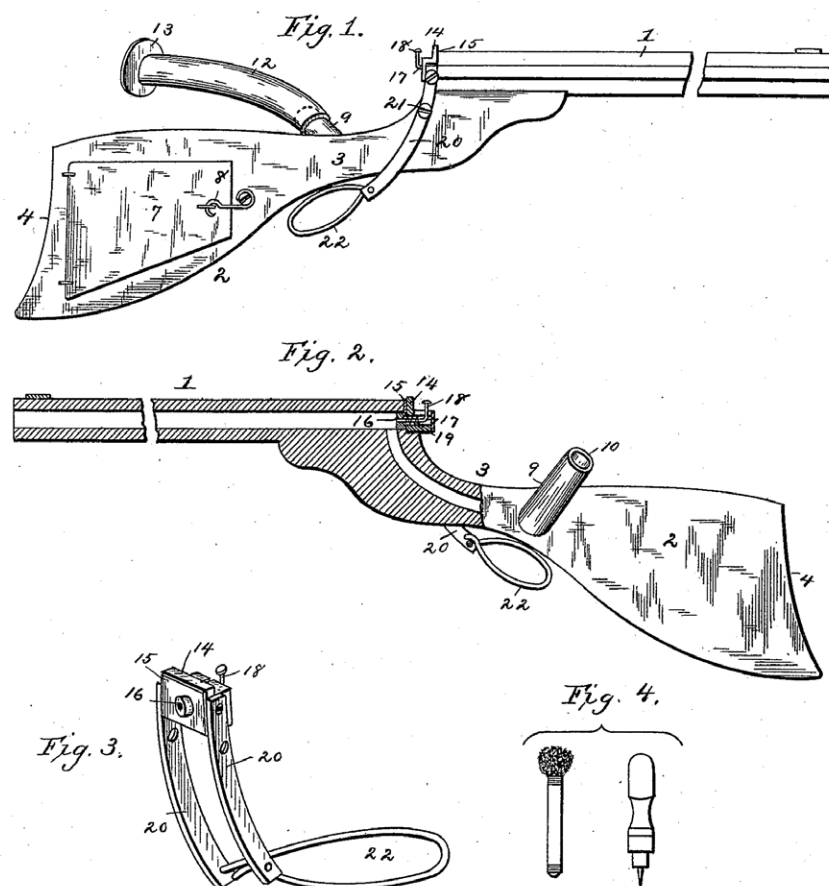
Witnesses:

Harry L. Amer.

W. S. Duvall

By his Attorneys,

Inventor

William M. Bunsen.

C. A. Snow & Co.

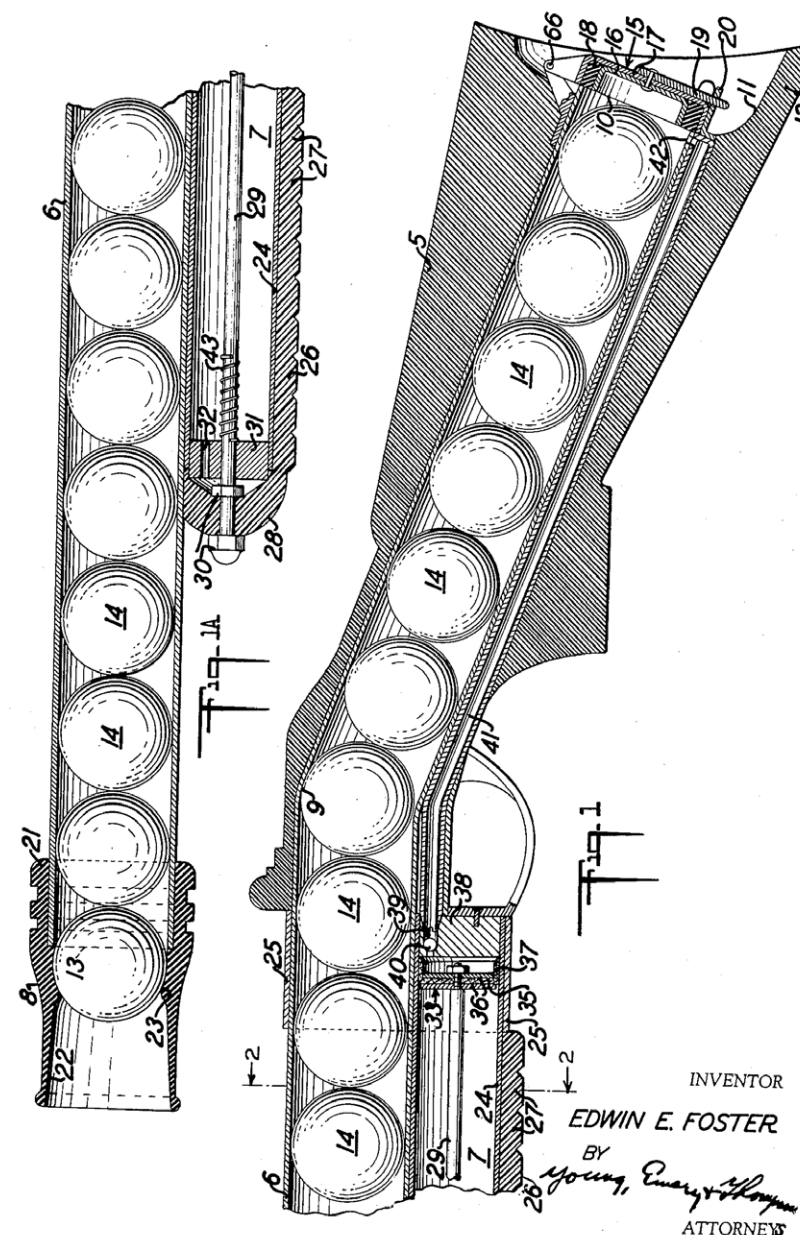THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

Dec. 6, 1955

E. E. FOSTER

AIR GUN

2,725,868

Filed Oct. 31, 1951

3 Sheets—Sheet 1

Fig. 1A

Fig. 1

INVENTOR

EDWIN E. FOSTER

BY

Young, Emery & Thompson

ATTORNEYS

38

July 31, 1962   O. C. HOLDERER   3,046,694

JET PROPELLED TOY ARRANGEMENT

Filed Sept. 20, 1957   2 Sheets—Sheet 1
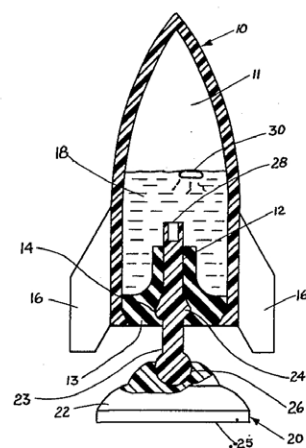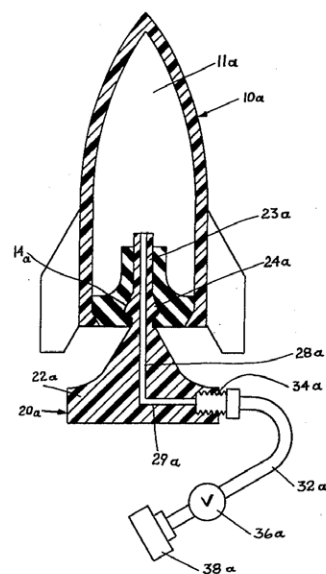
Fig. 1

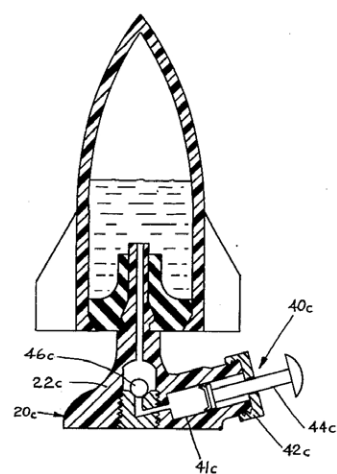Fig. 2

Fig. 3

INVENTOR.
OSCAR C. HOLDERER
BY
ATTY.

Oct. 10, 1967   L. F. HALL   3,345,977

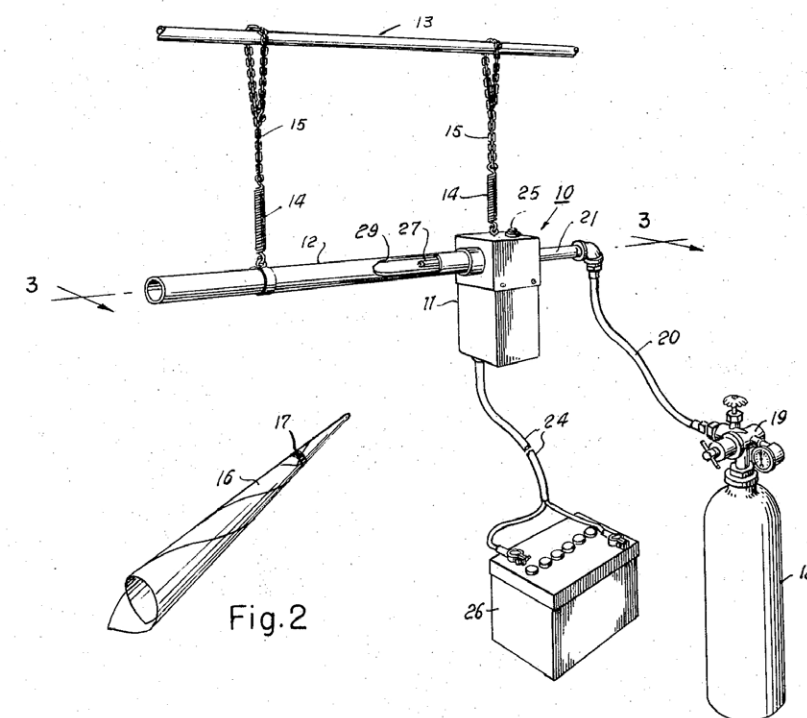SUSPENDED PRESSURIZED GAS OPERATED PAPER CONE PROJECTOR

Filed Jan. 3, 1967

Fig. 2

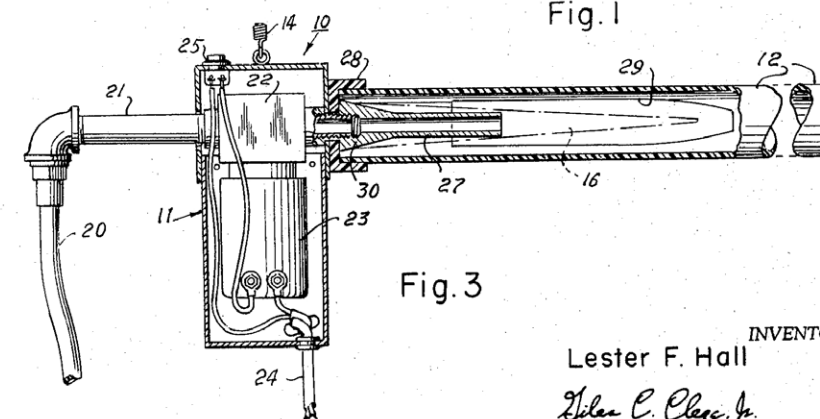Fig. 1

Fig. 3

INVENTOR
Lester F. Hall
BY
ATTORNEYS

United States Patent

Lamar, deceased

[15] **3,653,538**

[45] **Apr. 4, 1972**

[54] **METHOD AND SYSTEM FOR DISTRIBUTION OF ARTICLES IN RESIDENTIAL AREAS**

[72] Inventor: **Robert L. Lamar, deceased,** late of 2318 Rosefield St., Houston, Tex. 77055 Mary Ann Carey Lamar, executrix

[22] Filed: **May 25, 1970**

[21] Appl. No.: **40,212**

[52] U.S. Cl. 221/1, 221/13, 221/185, 124/11, 124/51
[51] Int. Cl. **B65g 59/00**
[58] Field of Search 124/8, 9, 11, 13, 51; 146/74; 119/51; 222/176, 177, 178, 193; 221/1, 13, 185; 89/1.5

[56] **References Cited**

UNITED STATES PATENTS

3,368,064 2/1968 Holt et al. 89/1.5

3,145,390 8/1964 Pochett.................................124/8 X
2,666,424 1/1954 Foster...124/9
3,093,127 6/1963 Starr...124/8
3,345,977 10/1967 Hall...124/11

Primary Examiner—Robert B. Reeves
Assistant Examiner—Larry Martin
Attorney—Michael P. Breston

[57] **ABSTRACT**

An automatic method and system for the distribution of articles, such as newspapers, in residential areas. Programmed information concerning a desired distribution route provides the input to a closed-cycle mobile article launcher. A measured quantity, related to the distance travelled by the mobile launcher from an initial reference position on the distribution route, is used to control the rate at which the programmed information is delivered to the closed-cycle firing system of the article launcher. The firing control system can operate as a closed-cycle or as an open-cycle at the command of the vehicle driver.

17 Claims, 7 Drawing Figures
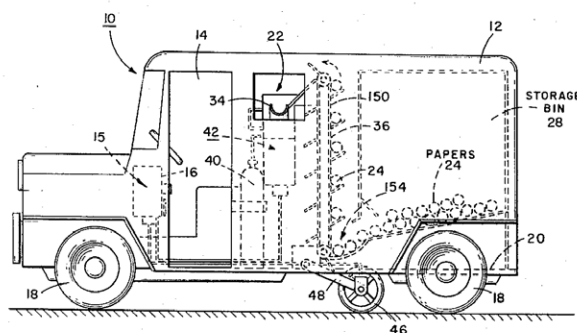
United States Patent [19]

Kashio

[11] **3,925,641**

[45] **Dec. 9, 1975**

[54] **ROUTE GUIDING APPARATUS**

[75] Inventor: **Toshio Kashio,** Tokyo, Japan

[73] Assignee: **Casio Computer Co., Ltd.,** Higashiyamato, Japan

[22] Filed: **May 3, 1974**

[21] Appl. No.: **466,701**

[30] **Foreign Application Priority Data**
May 8, 1973 Japan.................................48-50915

[52] U.S. Cl. 235/150.2; 235/150.24; 340/22
[51] Int. Cl.² G06F 15/50
[58] Field of Search......... 235/150.2, 151.2, 150.24; 340/22, 23, 24, 27

[56] **References Cited**

UNITED STATES PATENTS

3,653,538 4/1972 Lamar.............................. 235/150.2
3,681,752 8/1972 Cuddihy.............................. 340/24
3,824,534 7/1974 Straumsnes......................... 340/24
3,845,289 10/1974 French............................ 235/150.2

OTHER PUBLICATIONS
Programmed Driving Gets a Road Test in Germany, Electronics (International), July 19, 1971, p. 125.

Rosen et al.: An Electronic Route–Guidance System for Highway Vehicles, IEEE Transactions on Vehicular Technology, Vol, VT–19, No. 1, Feb. 1970, pp. 143–152.

Primary Examiner—Felix D. Gruber
Attorney, Agent, or Firm—Flynn & Frishauf

[57] **ABSTRACT**

A route guiding apparatus mounted on an automobile which automatically indicates a distance to a particular point on a route as well as a direction in which the automobile should continue its run at said point, namely, whether it should turn to the right or left or advance straight forward, and wherein the indicated distance decreases as the automobile advances and is finally reduced to zero at said point. Data corresponding to the course to be taken by the automobile at said point and corresponding to a distance between two adjacent points is stored in a memory device of said apparatus, and data corresponding to said course and distance is supplied as the automobile proceeds from a device for generating data on its actual run or data previously obtained, for example, from a map by operating a key input device.

15 Claims, 7 Drawing Figures
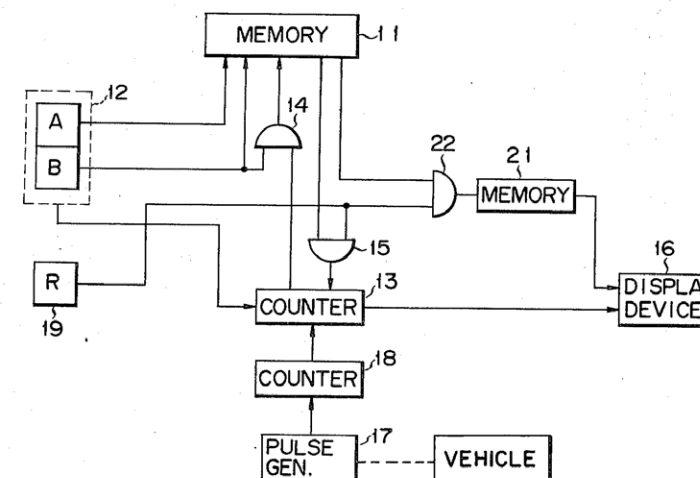
United States Patent [19]

Mizote et al.

[11] 4,242,731

[45] Dec. 30, 1980

[54] NAVIGATIONAL INFORMATION INDICATOR FOR SUPPLYING A VEHICLE DRIVER WITH MAKE-TURN INSTRUCTIONS

[75] Inventors: Masanori Mizote, Yokosuka; Kiyoshi Yamaki, Yokohama; Takashi Oka, Tokyo, all of Japan

[73] Assignee: Nissan Motor Company, Limited, Japan

[21] Appl. No.: 6,113

[22] Filed: Jan. 24, 1979

[30] Foreign Application Priority Data

Jan. 25, 1978 [JP] Japan 53-6826

[51] Int. Cl.³ G06F 15/50
[52] U.S. Cl. 364/436; 340/24; 340/73; 364/444
[58] Field of Search .... 364/424, 434, 436, 443, 364/444, 457, 460; 340/52 R, 54, 55, 56, 67, 73, 24

[56] References Cited

U.S. PATENT DOCUMENTS

3,824,534	7/1974	Straumsnes	340/24
3,845,289	10/1974	French	364/436
3,92 5,641	12/1975	Kashio	364/436

Primary Examiner—Errol A. Krass
Attorney, Agent, or Firm—Lowe, King, Price & Becker

[57] ABSTRACT

A navigational information indicator for supplying a vehicle driver with make-turn instructions comprises a first memory for storing each information indicative of each distance travelled by the vehicle as far as a point at which a turn is made, a second memory for storing each information indicative of the direction of each turn, and a display circuit for displaying a directional sign. When the vehicle travels from a first point toward a second point, the distances and directions of turns are respectively stored in the first and second memories in a sequence and these pieces of information are read out in the reverse sequence when the vehicle travels back to the first point from the second point along the same route. The stored information is read out to display each directional sign so as to supply the vehicle driver with make-turn instructions along the return trip.

9 Claims, 4 Drawing Figures
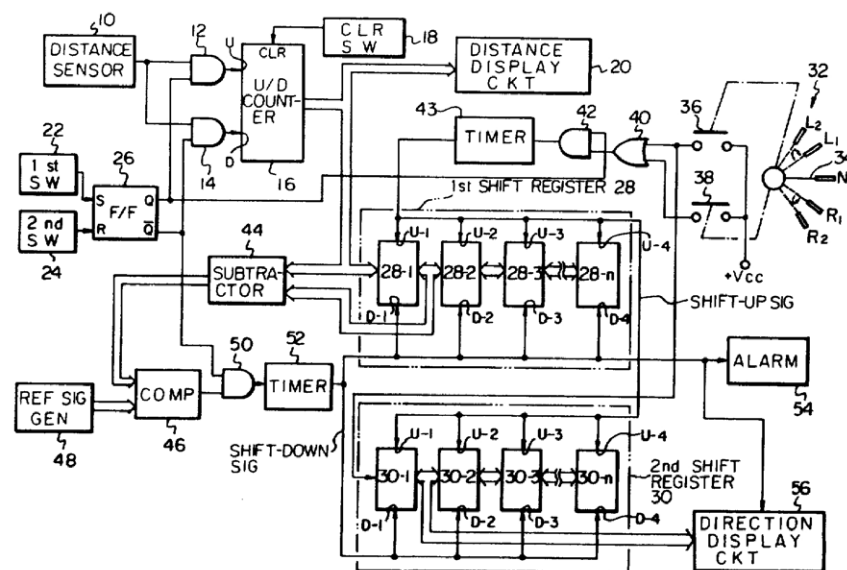
United States Patent [19]

LaRue

[11] Patent Number: 5,274,560

[45] Date of Patent: Dec. 28, 1993

US005274560A

[54] SENSOR FREE VEHICLE NAVIGATION SYSTEM UTILIZING A VOICE INPUT/OUTPUT INTERFACE FOR ROUTING A DRIVER FROM HIS SOURCE POINT TO HIS DESTINATION POINT

[75] Inventor: Charles LaRue, La Canada, Calif.

[73] Assignee: Audio Navigation Systems, Inc., La Canada, Calif.

[21] Appl. No.: 675,632

[22] Filed: Mar. 27, 1991

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 621,577, Dec. 3, 1990, abandoned.

[51] Int. Cl.⁵ G06F 15/50
[52] U.S. Cl. 364/444; 364/449; 340/988; 381/42; 395/2
[58] Field of Search 364/443, 444, 449, 364/436–438, 419; 340/990, 995, 905, 988; 395/2; 381/41, 42, 43, 51

[56] References Cited

U.S. PATENT DOCUMENTS

4,242,731	12/1980	Mizote et al.	364/436
4,502,123	2/1985	Minami et al.	364/499
4,630,209	12/1986	Saito et al.	364/444
4,677,429	6/1987	Glotzbach	340/711
4,679,147	7/1987	Tsujii et al.	364/449
4,758,959	7/1988	Thoone et al.	364/454
4,796,189	1/1989	Nakayama et al.	364/449
4,797,924	1/1989	Schnars et al.	381/43
4,827,520	5/1989	Zeinstra	381/43
4,829,578	5/1989	Roberts	381/46
4,882,696	11/1989	Nimura et al.	364/449
4,907,159	3/1990	Mauge et al.	364/436
4,954,958	9/1990	Savage et al.	364/444
4,984,168	1/1991	Neukrichner et al.	364/449

5,041,983	8/1991	Nakahara et al.	364/449
5,089,826	2/1992	Yano et al.	342/457
5,115,399	5/1992	Nimura et al.	364/449
5,126,941	6/1992	Gurmu et al.	364/424.02

FOREIGN PATENT DOCUMENTS

372840	6/1990	European Pat. Off. .
719017	12/1988	Fed. Rep. of Germany .
2108111	5/1987	Japan .

OTHER PUBLICATIONS

SAE Technical paper Series, vol. 870139, Warrendale, PA., 1987, M. L. G. Thoone et al.,: "The Car Information and Navigation System Carin and the Use of Compact Disc Interface".
IEEE Transactions on Instrumentation and Measurement, vol. 37, No. 4, Dec. 1988, New York, US, pp. 586–590; S. S. Awad: "Voice Technology in the Instrumentation of the Automobile".
"Computer Software Information Management"; Lesk; Scientific American, vol. 251, No. 3, Sep. 1984.

Primary Examiner—Vincent N. Trans
Attorney, Agent, or Firm—Spensley, Horn, Jubas & Lubitz

[57] ABSTRACT

An audio navigation system including an artificial intelligence routing algorithm which does not require any internal or external sensors to locate the vehicle. The interface with the driver is via voice input and voice output and is therefor visually non-distracting and safe to use when the vehicle is in motion. The hardware is built around an optical disk player and therefor can be used for entertainment as well as navigation functions. Digitized maps, compressed voice records and the computer programs are stored on an optical disk.

13 Claims, 8 Drawing Sheets
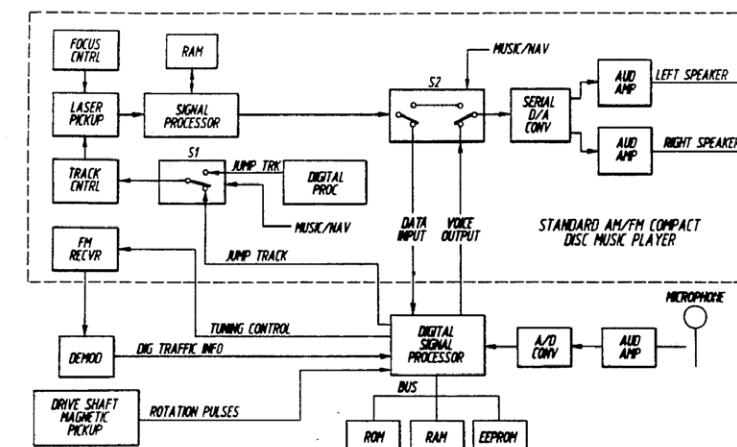
SINGLE PROCESSOR NAVIGATOR WITH TRAFFIC UPDATE AND DRIVE SHAFT SENSOR

US007949529B2

(12) **United States Patent**
Weider et al.

(10) Patent No.: **US 7,949,529 B2**
(45) **Date of Patent:** **May 24, 2011**

(54) **MOBILE SYSTEMS AND METHODS OF SUPPORTING NATURAL LANGUAGE HUMAN-MACHINE INTERACTIONS**

(75) Inventors: **Chris Weider**, Everett, WA (US); **Richard Kennewick**, Woodinville, WA (US); **Mike Kennewick**, Bellevue, WA (US); **Philippe Di Cristo**, Bellevue, WA (US); **Robert A. Kennewick**, Seattle, WA (US); **Samuel Menaker**, Bellevue, WA (US); **Lynn Elise Armstrong**, Woodinville, WA (US)

(73) Assignee: **VoiceBox Technologies, Inc.**, Bellevue, WA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1136 days.

(21) Appl. No.: **11/212,693**

(22) Filed: **Aug. 29, 2005**

(65) **Prior Publication Data**

US 2007/0050191 A1 Mar. 1, 2007

(51) **Int. Cl.**
G10L 11/00	(2006.01)
G10L 21/00	(2006.01)
G10L 15/04	(2006.01)
G10L 15/26	(2006.01)

(52) **U.S. Cl.** **704/270**; 704/235; 704/251; 715/727; 715/728

(58) **Field of Classification Search** 704/235, 704/251, 270; 715/727–728
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,430,669 A	2/1984	Cheung	358/122
5,155,743 A	10/1992	Jacobs	375/28
5,274,560 A	12/1993	LaRue	364/444
5,377,350 A	12/1994	Skinner	395/600
5,386,556 A	1/1995	Hedin et al.	395/600
5,424,947 A	6/1995	Nagao et al.	364/419.08
5,471,318 A	11/1995	Ahuja et al.	358/400
5,475,733 A	12/1995	Eisdorfer et al.	379/52
5,488,652 A	1/1996	Bielby et al.	379/88
5,499,289 A	3/1996	Bruno et al.	379/220
5,500,920 A	3/1996	Kupiec	395/2.79

(Continued)

FOREIGN PATENT DOCUMENTS

WO	WO 99/46763	9/1999

(Continued)

OTHER PUBLICATIONS

Chai et al., "MIND: A Semantics-Based Multimodal Interpretation Framework for Conversational System", *Proceedings of the International CLASS Workshop on Natural, Intelligent and Effective Interaction in Multimodal Dialogue Systems*, Jun. 2002, pp. 37-46.

(Continued)

Primary Examiner — E. Yen
(74) *Attorney, Agent, or Firm* — Pillsbury Winthrop Shaw Pittman LL

(57) **ABSTRACT**

A mobile system is provided that includes speech-based and non-speech-based interfaces for telematics applications. The mobile system identifies and uses context, prior information, domain knowledge, and user specific profile data to achieve a natural environment for users that submit requests and/or commands in multiple domains. The invention creates, stores and uses extensive personal profile information for each user, thereby improving the reliability of determining the context and presenting the expected results for a particular question or command. The invention may organize domain specific behavior and information into agents, that are distributable or updateable over a wide area network.
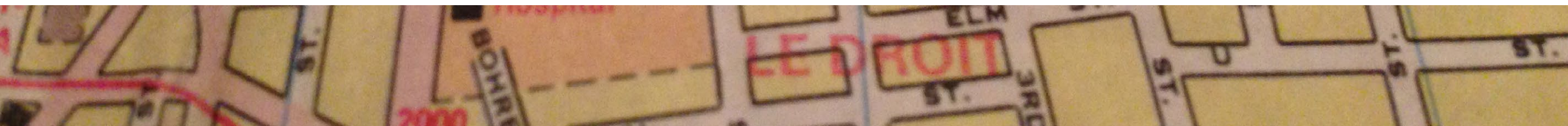
31 Claims, 8 Drawing Sheets
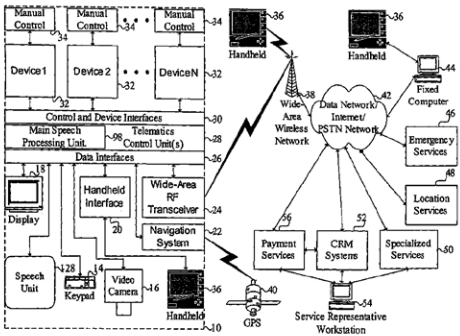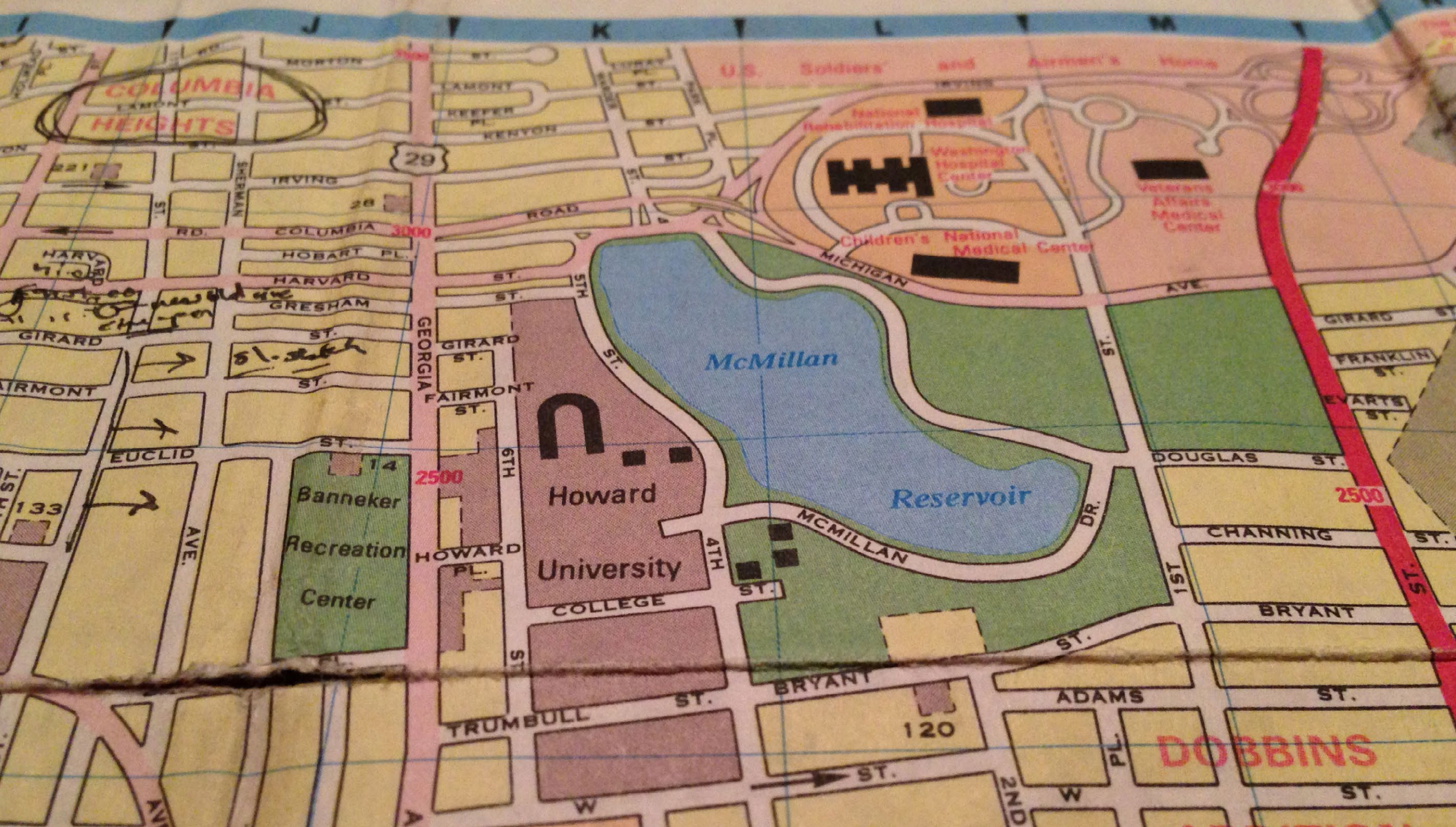
DATA COMMONS

GREG BLOOM

DATA COMMONS
GREG BLOOM

Greg Bloom's *Data Commons* investigates the possibilities for an aggregate data hub of used and maintained DC social service agencies, organizations, resources, and communities. Originally formulated during Bloom' experience as *Marketing Manager* at *Bread for the City*, a major DC social service organization providing food and resources to low-income communities. Noting that the information about the social service sector was diffused, costly to access, and laborious to produce and reproduce, Bloom imagined an open source wiki-site where participants across sectors could freely add and share information. Bloom was surprised by the deep resistance from many social service agencies to his proposed means for freely sharing information which would benefit its constituents.

Bloom's research presented herein in this document engages possibilities for building broad-based, user-driven community support for the endeavor beyond the sector leaders. Meanwhile, it explores the monied walls, isolationist information

management schemes, and iterative failures that characterize government and protectionist information management systems- -looking critically and creatively at this reaction. Towards the end of the residency, a job managing the *211 directory* (the official directory of health and human services) came online, and Bloom submitted a proposal for the position, a creative testament to his research and opportunity to share his perspective with the powers that be.

Through the *Data Commons*, Bloom imagines a more progressive and efficient DC, eliminating the laborious production of isolated information endlessly reproduced by new government agencies and institutions, and envisioning a future in which communities can produce, share, and keep current common knowledge about their own resources.

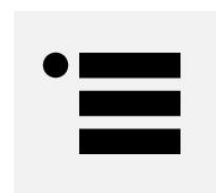# THE COMMUNITY DATA COMMONS
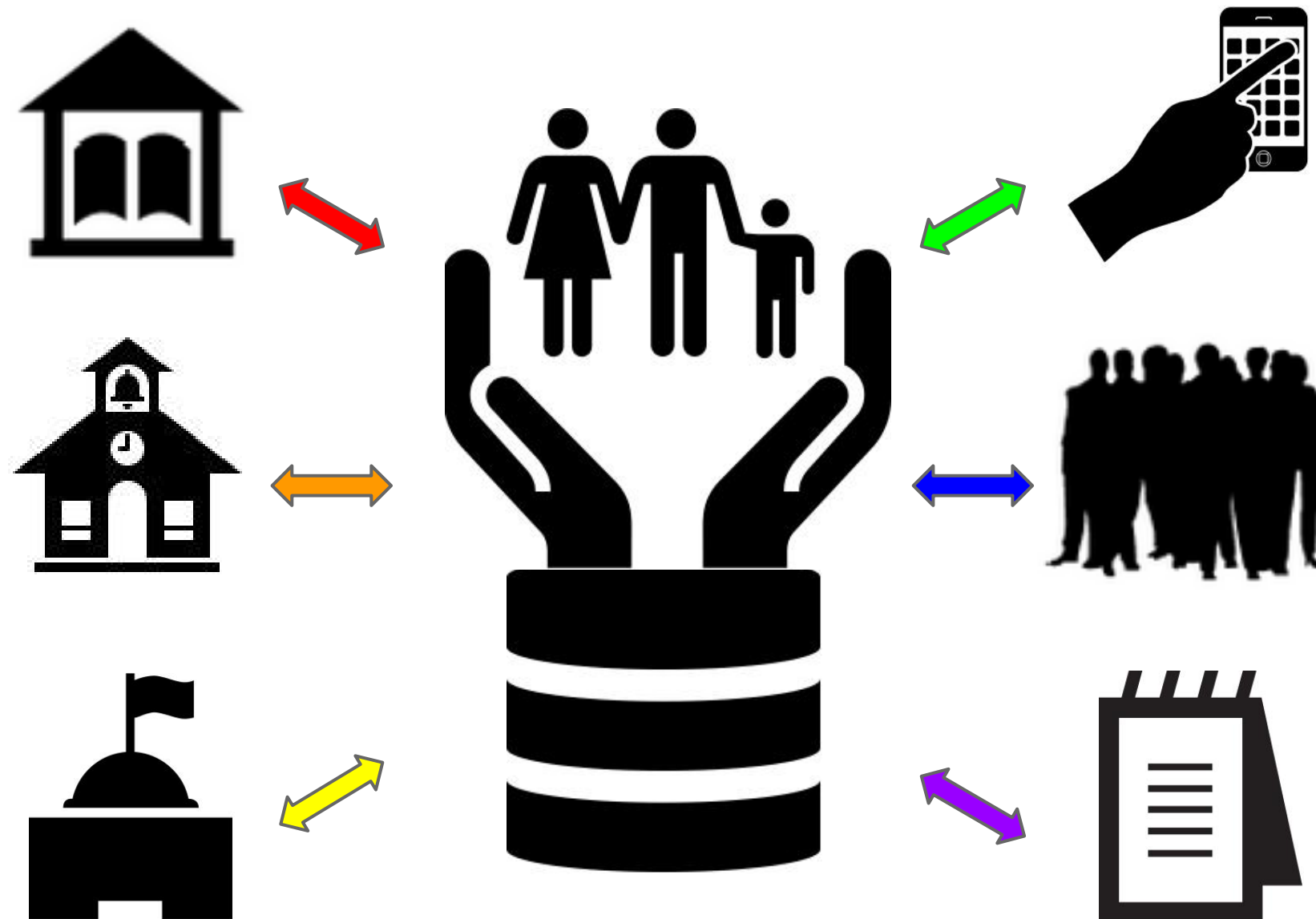
Icons by the Noun Project

http://thenounproject.com

Application
by Kyle Sasquie Klitch

Category
by Berkay Sargin

Data File
by iconoci

Community Mapping
by Iconathon

Group
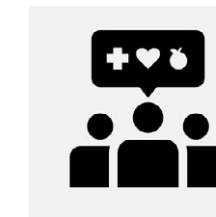by Tonielle Krisanski

Data
by United Nations OCHA

Database
by Romeo Barreto

Tag
by Ian Hamilton

Library
by libberry

Community Health Advocate
by Edward Boatman

RESEARCH PAPER

The Community Resource Data Commons
by Greg Bloom, Provisions Library Research Fellow
greg.bloom@gmail.com | 202.643.3648

Background: Information Systems and Referral Problems

The social service sector is complex, and information about it is fragmented. In social service agencies across the country, social workers struggle to find and maintain accurate information about what other services are available for their clients. People in need face confusing organizational jumbles that cost precious time and energy. Community planning initiatives face the challenge of starting from scratch in collecting data about what resources already exist in their areas.

Assessing the state of information-and-referral (I+R) systems within the human services field in 2004, Nancy Shank et al. wrote that "human services is a distributed system that calls for a distributed, rather than centralized, information system."

Indeed, 2-1-1 -- the incumbent system for human service information-and-referrals -- is an example of such decentralization: more than two hundred 2-1-1 systems operate independently across the U.S. and Canada. Though 2-1-1 was designed in the mid-90s to be a universal calling system (readily identified and accessed anywhere by people looking for any kind of assistance) each 2-1-1 system developed independently, shaped by social institutional landscape in each locality. Some 2-1-1 systems are run by the local government; some are operated by local United Way chapters; some are private non-profits. Today, however, the network has yet to adapt to a new world in which data is abundant, the social service sectors are increasingly complex, and information-and-referral processes are shifting rapidly online. Resources are scarce in this field, and technological innovation is not clearly incentivized -- and while the dispersed 2-1-1 network struggles to revive its model, important data about community resources and public services remains "locked in" these costly and siloed systems.

In recent years, the Alliance of Information and Referral Systems (AIRS, which facilitates the development of 2-1-1 systems) has taken some steps toward 'unlocking' this data in order to make it more 'interoperable.' Most prominently, AIRS developed **the AIRS XSD data standard**, which facilitates exchanges between compliant I+R systems. However, this step only makes 2-1-1 data interoperable with other 2-1-1 systems. The **2-1-1 taxonomy** itself, however, remains proprietary -- owned by LA211, and co-administered by AIRS. The taxonomy is a 'map' of all the available health/human/social services -- and in order to become an accredited 2-1-1 system, or even just to reference 'the map' in any system, a license is required. This license poses a modest financial burden to the organizations that operate these systems; more important, it poses a prohibitive burden to attempts to develop "open" systems that could have an open set of operators. This proprietary taxonomy stands as a legal barrier between these systems and alternative attempts to meet community needs, and it enforces a separation between this data

and other kinds of data (demographic, philanthropic, etc) that could gain tremendously in value by integrating with information about programs and services available in a community.

Innovation at the margins: uneven progress, recreating "lock-in"

In recent years, a slew of startup initiatives have emerged to fill the voids in the Information-and-Referral world. These initiatives suggest the great potential for 'lean' service-oriented approaches to meeting the needs of the service sector -- but they also demonstrate the need for broad-based interoperability initiatives.

The trajectories of Open311 and Open211 provide an illuminating contrast. First developed in Washington DC and subsequently implemented across the country, **the Open311 initiative** developed a set of standards for data about *municipal service requests* (potholes, traffic light malfunctions, rodent infestations, etc). Open311 established a set of standards for the data exchanged in these interactions -- and these standards then enabled requests to be read by external applications for 'collaborative problem solving' between residents and city governments. A flurry of applications have developed in the time since -- such as See, Click, Fix -- demonstrating the potential for a single interoperability initiative to foster a cascade of innovative development.

In contrast, Open211 was *not* a set of standards. Open211 was a lightweight database application developed through the Code for America program featured a simple interface that aggregated social services via a mapping interface. Open211 could receive user-submitted data, and could send out data via mobile SMS for geo-specific requests. But Open211 struggled to achieve adoption. With incomplete data sets and no formal categorical order, the service was of limited use -- and users didn't stick around and contribute enough to change that. The code for Open211 is freely available today, but the project is dormant. In contrast with the public services of a city, the data challenges of the human service field are more complex.

Other recent entrepreneurial startups (such as Aunt Bertha, Idealistics, and Purple Binder) have approached the human service data problem by meeting the specific needs of social workers, with software that (for a fee) integrates into social workers' workflows. Aunt Bertha's software streamlines and digitizes the intake process; Idealistics offers a smart case management system; and Purple Binder's software helps people manage organizational referral information.

These services offer an exciting glimpse of a possible future of sophisticated software for social services. However, in and of themselves, each approach actually recreates the 'data lock-in' problem. If their software is successful in getting users to share their own knowledge of the local service landscape, that data then becomes a competitive advantage that the entities are incentivized to protect rather than share.

Recent developments towards interoperability

Especially on the levels of *data* and *technology*, we've seen recent developments that, taken together, pose the opportunity to move beyond this self-defeating competitive pattern.

1) The **Open Eligibility** project has been published by Aunt Bertha as a result of an extensive internal development process. It introduces an open source taxonomy for human services -- fundamentally different in structure from the AIRS taxonomy. While the AIRS taxonomy contains about 12,000 terms in a nested hierarchy, Open Eligibility is a relatively lightweight two tiers consisting of tags that can be applied to organizations according to the services they provide and the kinds of people they serve. Open Eligibility has a Creative Commons license, which means that any system can use its taxonomy to structure its 'world' of services.

2) Recent development of **data-collaboration sites** like Datahub.io and Sahana take interoperability one step beyond the possibilities of APIs (which enable databases to be queried by external applications) -- now enabling datasets to be openly served from the cloud, and even collaboratively edited in the cloud. Taken in tandem with the Open Eligibility taxonomy above, this now makes it possible to build a 'big database in the sky' that is ordered according to a commonly-readable map. Furthermore, this makes it possible to leverage distributed updates from a variety of applications and users.

3) Another big step towards interoperability is the **approaching 'liberation' of Federal 990 data**.[1] This is information that non-profit organizations declare to the IRS every year via 990 forms that consist of data that is public. However, this data is not 'open,' inasmuch as it's captured on image-files -- and thus is not machine-readable. Several large non-profit organizations spend considerable amounts of resources every year to mine these forms for data, which is then re-sold to the government and third party institutions. The federal government has been making moves towards 'mandatory e-filing' that would automatically produce standardized machine-readable data; and in the meantime, the data-mining organizations seem ready to 'open up' their data troves. As a result of these short-term (private) and long-term (public) shifts, we can anticipate an open data catalogue of the entire non-profit universe. Data from Federal 990 forms does not contain service-level information that is essential for the purpose of Information-and-Referral, but this shift is still significant for two reasons: 1) it establishes a baseline set of information about all known organizations, and 2) it enables Information-and-Referral data to be aligned with financial information for purposes of research and evaluation of the social sector.

4) Finally, we can see the early glimmers of open innovation on the 'client side' -- in the world of health and human services case management software. **The OpenCISS (Community Information Sharing System) initiative**, with its **OpenHMIS** subproject, are developing open alternatives for case management in public and non-profit agencies working with homelessness and housing -- with potential extension to health data systems and more. OpenCISS is already developing its software to 'read' *either* the AIRS *or* Open Eligibility taxonomies, which would

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[1] See "Information for Impact: Liberating Nonprofit Sector Data," Noveck and Goroff.

enable implementers to choose which kind of I+R system with which they wish to interface.

Altogether, these pieces promise a huge step forward in the "interoperability" of social service data and information technology. However, this represents only partial advances. Interoperability is not just a matter of technology; it can be defined across four different vectors:

- **Interoperability of data:** enables data formats to be 'understandable' by a diversity of receiving entities. Standardization makes it possible for data to be 'portable' between systems, and then meaningfully integrated with other data.
- **Interoperability of technology:** enables interoperability *horizontally* between databases and applications (via technology like APIs) and *vertically* between server infrastructure and a proliferation of computing devices.
- **Human interoperability:** enables understanding across divisions of language, skills, culture, etc.
- **Institutional interoperability:** enables collaboration across organizational boundaries, often determined by legal and policy frameworks, and organizational culture.

We have an abundance of the former pair; the latter pair has hardly advanced, especially in the social sector. We will need new organizational models and collaborative practices for our systems to be truly interoperable. Despite the advances in data interoperability and technological interoperability, only *corresponding advances in* **human** *and* **institutional** *interoperability will yield the cascading benefits that are made possible by technology*.

Toward a Commons-Based Solution

Rather than trying to build 'the right application' to solve this problem (a Sisyphean task that has deadlocked the 2-1-1 model), and rather than totally ceding the manifold I+R needs to the market (which the social entrepreneurs hope to capture surplus value through private models), **a truly effective solution must first establish community resource data as *a commons* (i.e. a shared resource cooperatively managed by its stakeholders).**

A *community data commons* (consisting of an open, interoperable set of resource directory data) would enable us disentangle the *challenges of data* from the *challenges of applications*; upon solving the former, we will see a wave of service-oriented innovation around the latter. Furthermore, such a solution would enable the resource directory data to finally be interoperable with client-side data systems, demographic data, funding data, etc.

This does not eliminate the value of a calling-system such as 2-1-1, nor the effectiveness of competitive market-driven software development -- rather, a common-data pool would bolster those initiatives. A standardized core of directory data about community resources can be made *openly available* to legacy systems and innovative startups alike -- nullifying the competitive advantage, and lowering if not eliminating the demands of data maintenance for a vendor. As a result of this ecosystemic approach, the various entities can cooperate (sharing data through

the common-pool) even while competing (offering value-added services). This *commons-based approach* may be the surest way to maximize the value to *end users* -- that is, people in need and the organizations that serve them.

Of course, in order to sustain and flourish, a commons must be *managed* -- and we need to design that shared management capacity as if it were itself social software. I propose that the best way to model this capacity is through the development of a *cooperative*.

A cooperative is an enterprise that is owned and governed by its stakeholders, who are members (as opposed to 'clients' or 'consumers').[2] Through a cooperative model, the development of this common data pool resource will be directly accountable to the community of stakeholders. With a lean core of coordination capacity, the cooperative can effectively synthesize "official data" with local knowledge by leveraging the distributed contributions of its members. Furthermore, this approach can facilitate technological innovation, with an established capacity to apply reliable open data through targeted applications designed specifically according to members' needs.

In this way, a cooperative model could go beyond solving the technical challenges of information-and-referral systems, and foster the human interoperability (skilled use and meaningful participation, established through membership trainings and support services) and institutional interoperability (in which the member organizations at the table now set the priorities for development of the common data pool, and are able to share the ongoing capacity that is needed to work towards interoperability within a heterogeneous ecology).

A proposed path forward

In the District of Columbia, a commons-based solution is in sight. In part, it is readily conceivable because of idiosyncratic circumstances: for one, the city is a self-contained unit rather than one locality among many in a state, and furthermore it occupies a very small geographical area, which makes it easier for local collaboration to have system-level implications. Most importantly, local stakeholders with active working relationships came to a table to solve a problem -- and their community did not have an active incumbent I+R provider (2-1-1 was a neglected government program, not represented at the table when community stakeholders began discussions).

As a result, we have already taken several steps towards a viable community resource data commons:

1) **Establish** *a common data pool* by merging multiple local databases (see *Stakeholders*, below) into a single consolidated file in which each organization is assigned a unique ID. We have already accomplished this merge! The next step is to make this common data pool accessible via **an Open API**.

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[2] Not surprisingly, the world of cooperatives (housing co-ops, food co-ops, credit unions, etc) has recently developed a precedent for this model: the Data Commons Cooperative collects data about the cooperative economy (especially valuable as cooperatives have a shared core prerogative to cooperative with each other) and offers special data services to its members.

2) **Apply** *an "open" taxonomy* to organize the common data pool. Aunt Bertha's recently published 'open' taxonomy (at OpenEligibility.org) provides a simple, semantic structure to the field of human services. The work of actually tagging directory entries according to this taxonomy could be 'co-produced' through participatory social events ('data frolics') including members of the coop. Data entry in legacy models is done by professionals at a remove from the community they're serving; by re-defining this work to be done by stakeholders, a 'community data coop' would not only reduce costs but also foster education that can yield 'meaningful use,' and generate the user feedback necessary to shape an effective set of applications

3) **Establish a** *cooperative charter*, which lays out rules and expectations for the sustained viability of the common data pool. Note that the "openness" of the core directory data does not necessarily mean that anyone can access however they want, much less that anyone can add anything to the dataset; commons can be effectively managed, but they require rules and norms. The cooperative charter itself can establish these rules: who is able to "read from" and "write to" the database, under what conditions, etc.

4) **Demonstrate potential through initial applications**, such as mobile information-and-referral services; feature-rich software for case managers and social workers; a LocalWiki that serves the structured data alongside unstructured space for users to contribute 'tacit' knowledge, etc.

5) **Engage users in participation** via an accompanying set of social programs for various community spaces, levels of skill, applications, and purposes. For instance: resource mapping projects in social service and civic contexts; digital literacy training for LocalWiki at libraries; regular "hackathon"-style opportunities for experimentation with diverse user groups.

A call for leadership

It's important to note that the progress made so far *has not been institutionally driven*. Though everyone would benefit from common solutions, stakeholders currently lack either means or incentives to take 'commoning' actions. As both the instigator of the conversation and the author of this report, I play the role of an 'agent of the commons,' but in the long-run, that agency needs to be formally established and supported by the stakeholders. **Supportive intervention may be necessary to realize the potential benefit of a common approach**. Such interventions could entail:

- Sponsorship of key organizing roles, with an accompanying plan for meaningful incentivization of associated labor (such as a 'timebanking' framework).
- Institutional support for a cooperative development process, potentially commencing with the formation of an Advisory Council and/or the launch of a Feasibility Study to evaluate the viability of the Open Taxonomy, the 'common data pool' management plan, the Data Coop, etc.

- Institutional support for development of a *universal data exchange schema* (common standards) that can enable differently-taxonomized systems to 'talk' to each other. Possibly in collaboration with similar initiatives in other cities.

CITES:

http://www.businessofgovernment.org/sites/default/files/Designing%20Open%20Projects.pdf
http://cyber.law.harvard.edu/epolicy/roadmap.pdf
http://digitalcommons.unl.edu/publicpolicyshank/6/
http://digitalcommons.unl.edu/publicpolicypublications/42/
https://docs.google.com/document/d/
1KT00_LdimGFKWkdJ7UG6W0Wf8uAvND191BDxPl8SotQ/edit#
http://ica.coop/en/what-co-op/co-operative-identity-values-principles
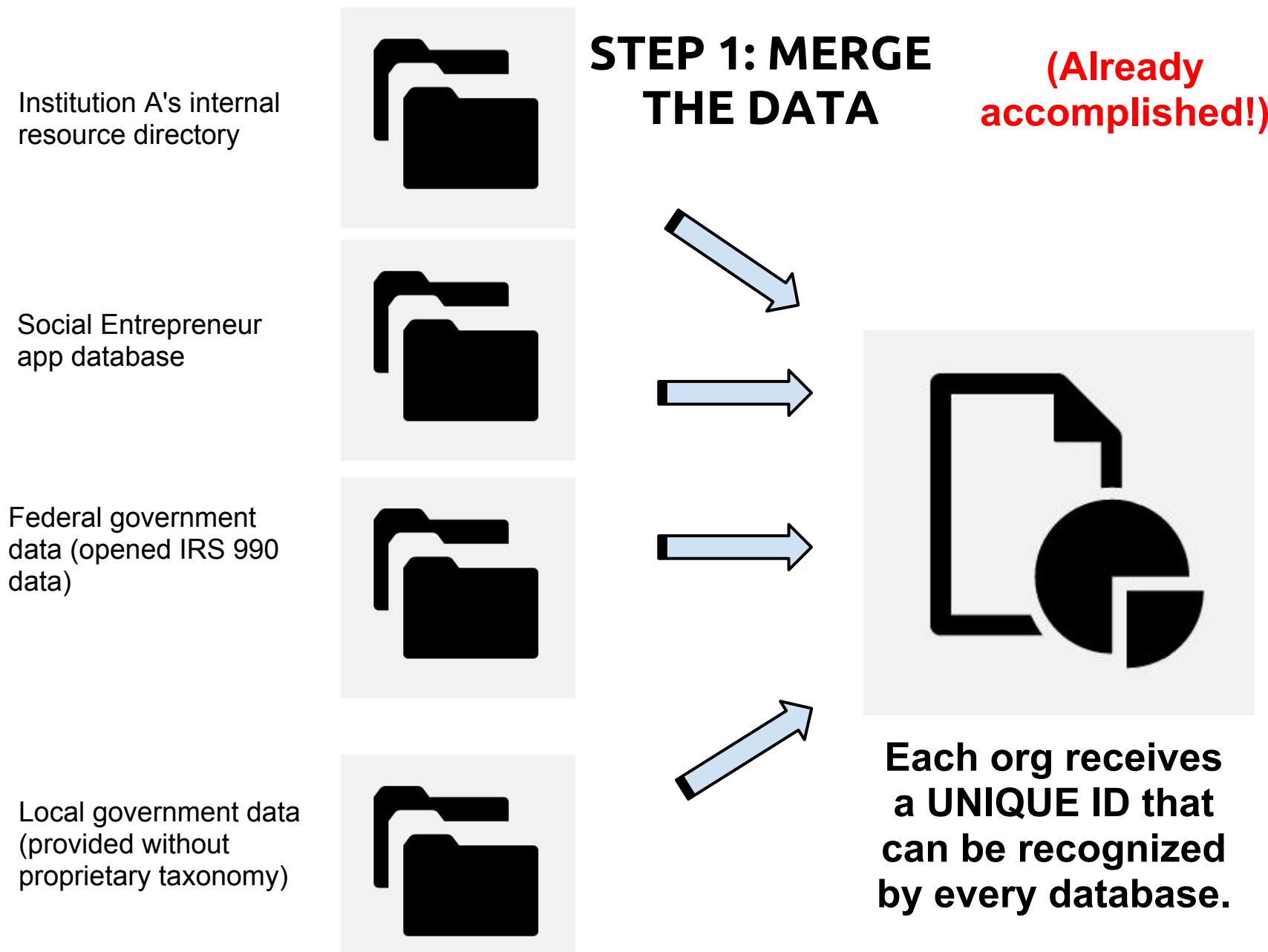http://books.google.com/books/about/Governing_the_Commons.html?id=4xg6oUobMz4C
www.ssireview.org/blog/entry/liberating_990_data
http://firstmonday.org/ojs/index.php/fm/article/view/1107/1027

DATA COMMONS PRESENTATION

Institution A's internal resource directory

Social Entrepreneur app database

Federal government data (opened IRS 990 data)

Local government data (provided without proprietary taxonomy)

STEP 1: MERGE THE DATA

(Already accomplished!)

Each org receives a UNIQUE ID that can be recognized by every database.

STEP 2:
ORGANIZE THE DATA
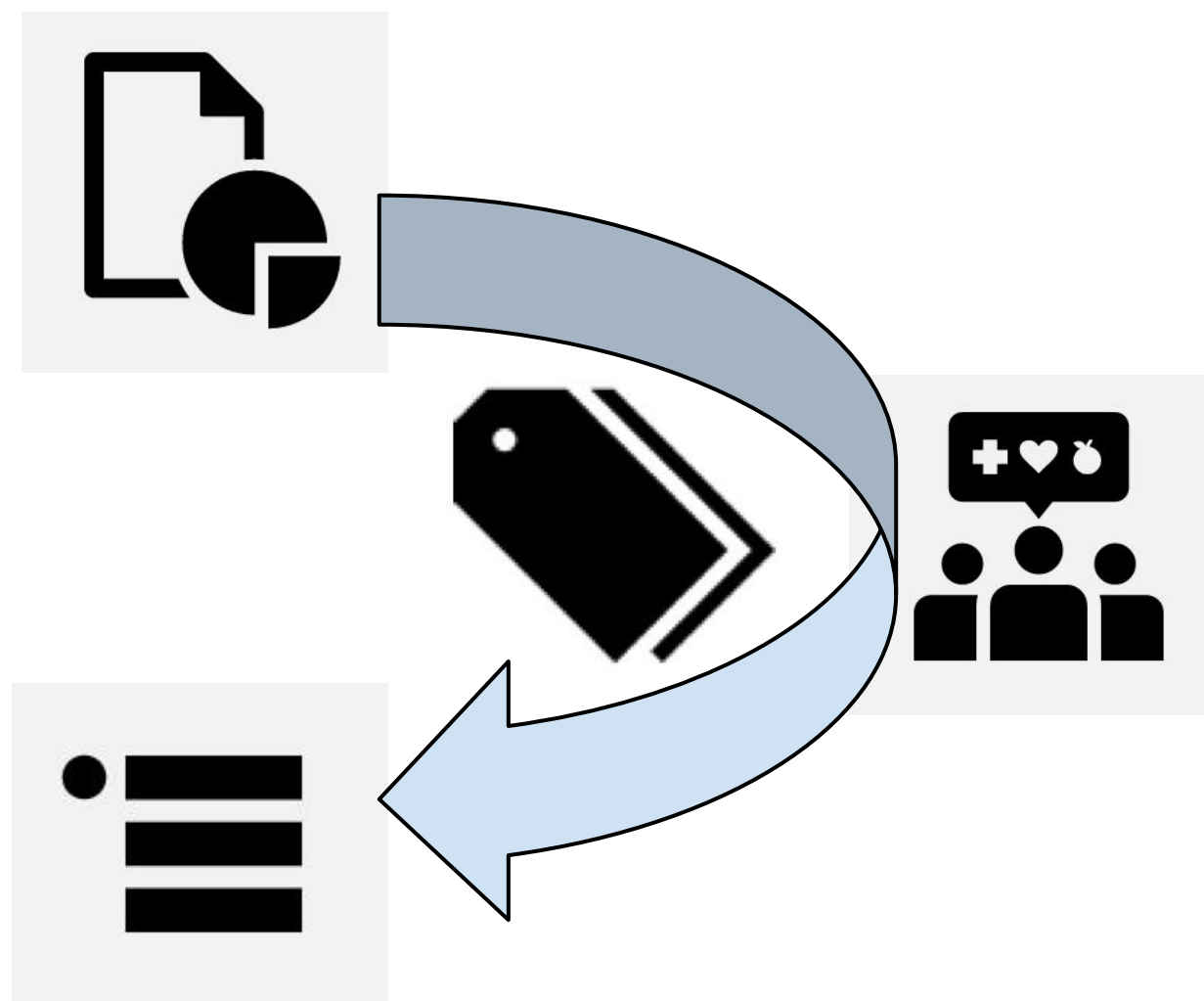
Using recently-published open-source human services taxonomy (http://openeligibility.org) tag entries during participatory community events -- 'data frolics' -- to order the database

This comes NEXT!

STEP 3:
Open the "DATA COMMONS"
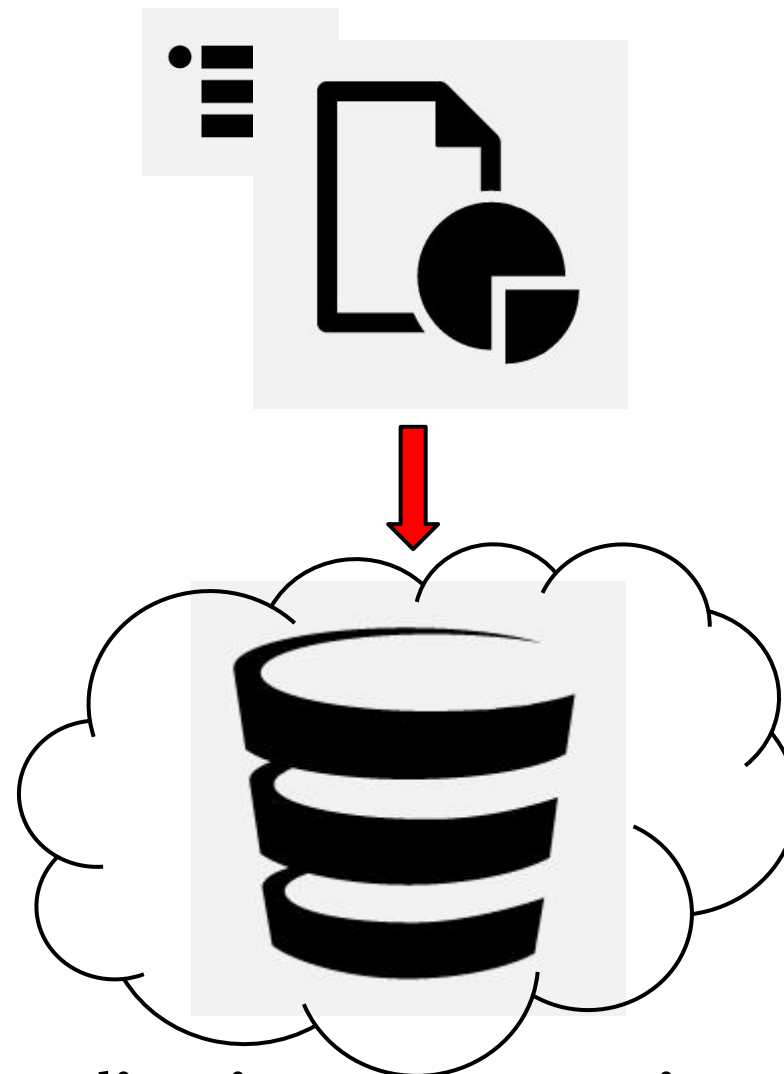
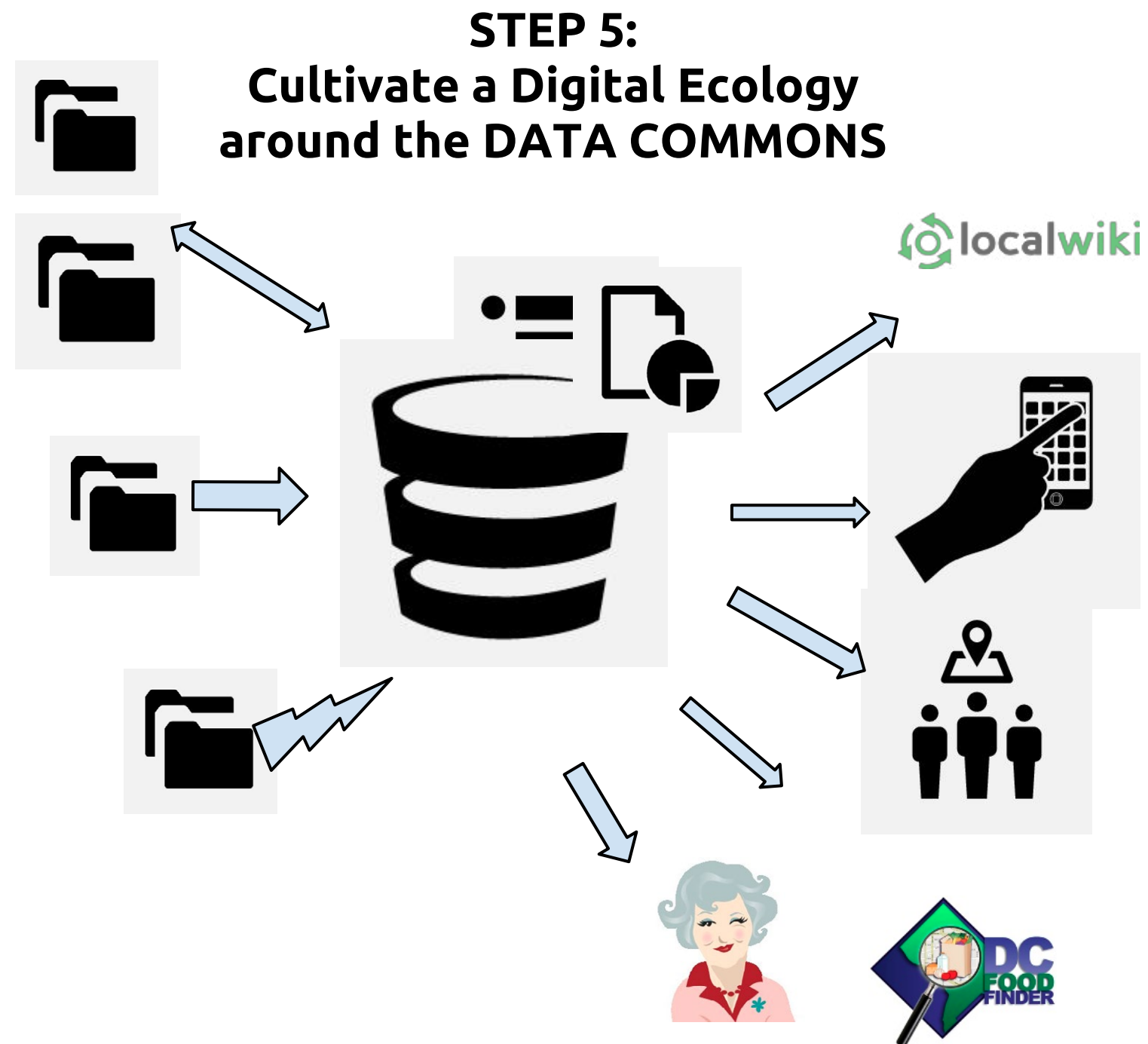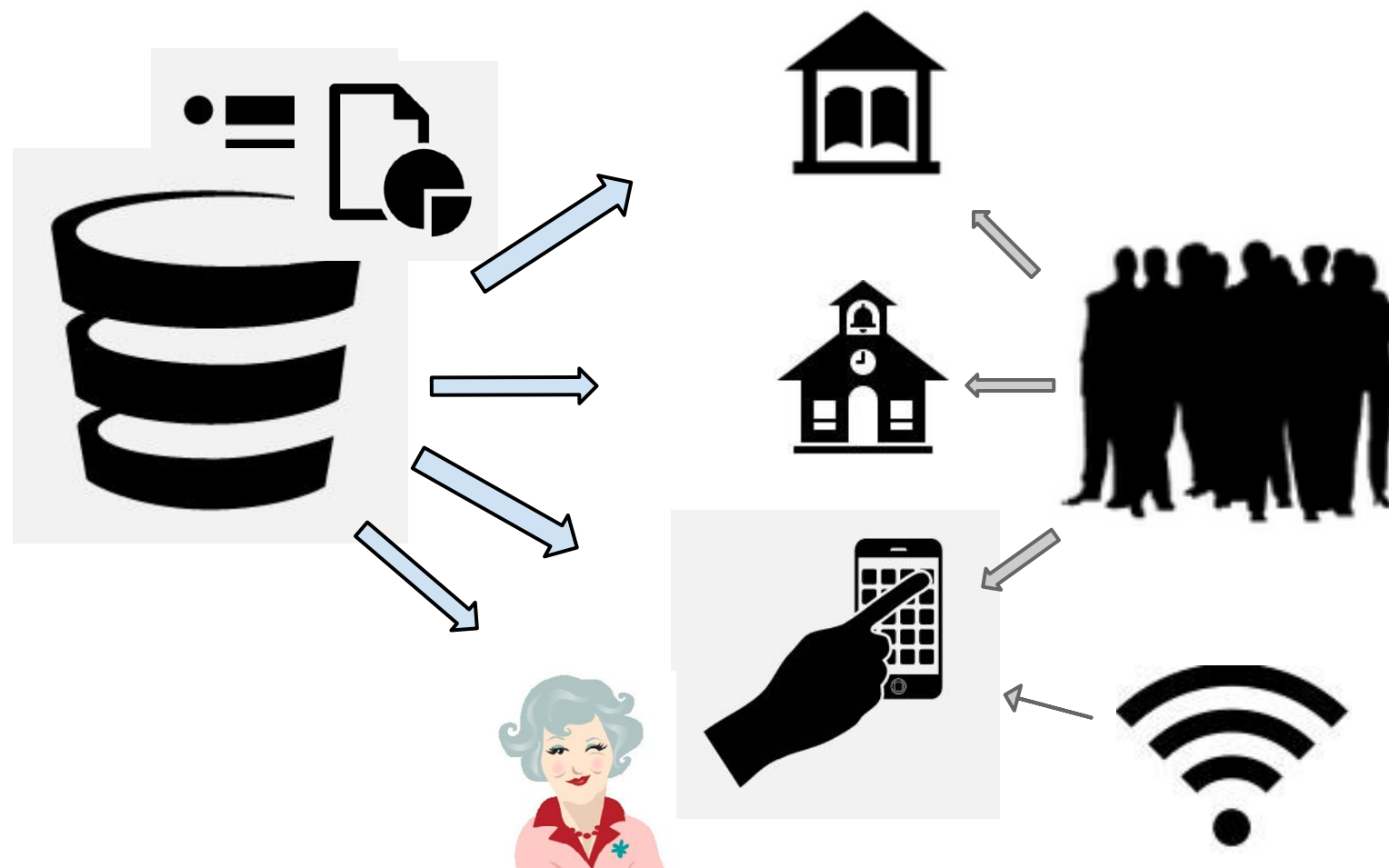This step has already been accomplished, although database architecture is subject to evaluation and iteration in the future.

API = Application Programming Interface

Institution

Vendor

Application A

Application B, and so on....

STEP 4:
ESTABLISH
COOPERATIVE
AGREEMENTS

A Data Coop?

STEP 5:
Cultivate a Digital Ecology
around the DATA COMMONS
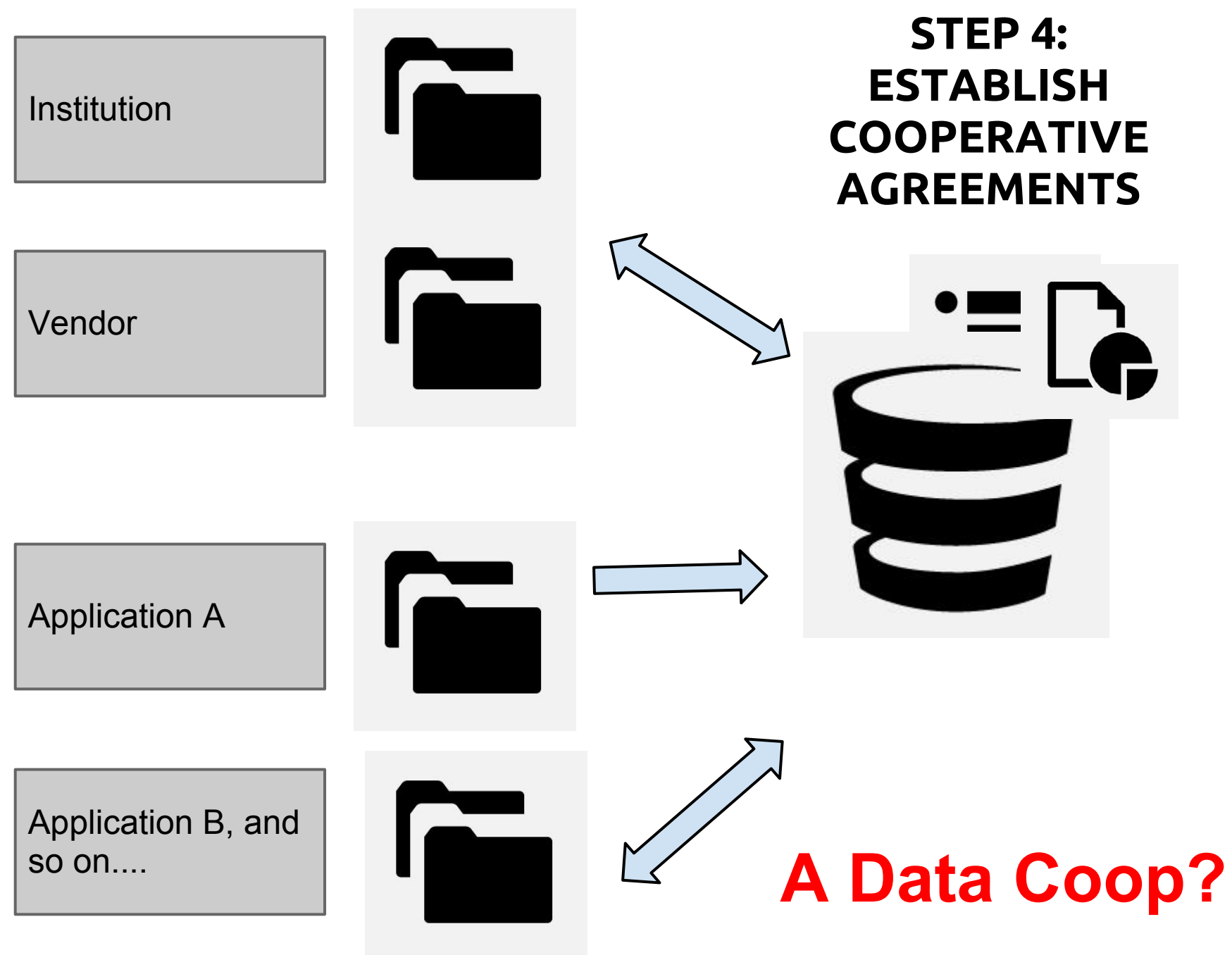
STEP 6:
People ⟺ Data

United Way Worldwide
701 N Fairfax St
Alexandria, VA 22314

February 15, 2013

Dear United Way Worldwide --

I'm pleased to have an opportunity to reply to your job posting for Director of 2-1-1 Strategic Enhancement. I was impressed to see this post call for the development of "a revolutionized set of network engagement rules based on interdependence and mutual accountability." These are values that I hold dear! And I, too, believe that 2-1-1 needs nothing less than a revolution.

A call to 2-1-1 -- be it a request for a food pantry, or a place to sleep, or legal assistance in recovering stolen wages -- is the declaration of a human crisis, toward which the resources of a just society should be rallied for resolution. But despite the presence of widespread human crises here in D.C., our 2-1-1 is not widely used. In fact, it's known as yet another example of how the interests of poor people are neglected: a clunky service with information you can't trust.

So over the past few years, I've been working to build a better system. We've come a long way! I don't know if we'll succeed, but fortunately we're not alone: across the country, people are working to solve this problem. We're all fumbling forward, making mistakes, hitting dead ends. Evolution is messy. But it's happening real fast now. This problem will be solved, eventually. The question is: who will be solving it, and for whom?

So here's my proposal for your 2-1-1 enhancement strategy: let go. Give it up. Grab a white flag and waive it. I don't mean *shut down*. I mean *ask for help*. Open up your data, let others integrate it with other data and make it better. Open up the 2-1-1 taxonomy (whatever it may take to do this); then let others suggest ways to improve it, to map it against their own taxonomies--or if they must, remake it for their own.

Yes, you'll be letting go of control. But that's a good thing. Almost all of the people who have good ideas about what to do with the data are *out there*. By letting them get to work, you can spend less energy trying to control what can't be effectively controlled, and more energy realizing the true value of all this: being as helpful to people as possible. And by being the institution to set it all in motion, you'll benefit in the long run.

Now, this itself is not revolution. It's just smart business sense. Your services will be made more efficient, as people make new and better applications. Your call centers will face less demand, because people will find new ways to get this information. You can start charging for premium services and support (with less overhead) for communities that have the resources and drive, but need the help. And you can secure larger government contracts now that your call centers and applications can focus on higher-value processes like enrollment and certification.

Once it's all open, the real revolutionary work can begin. And by work, I mean parties.

A party every month at every United Way chapter. Put out pizza, salad, juice, and computers. Order your call center staff to attend. Get some geeks in the room -- every community has them and they love to be helpful. Invite your non-profit network to come; if it helps, put their funding on the line. Tell them to tell their clients they're invited, too (make sure to mention the pizza). At the start of every party, challenge everyone to ask everyone else: what do we need to do better in our community? Even better: what do you *love* about your community? What's your hopeful vision for the future? At the end of every party, encourage the people with ideas to schedule times to meet back up before the next party, when you'll offer rewards for the best projects.

Now that you're cooking with gas, here's the exciting part: give callers the option to make their requests for help public! Let unmet needs themselves become a site of public discourse. Let everyone see who responds, who is silent, where there's work to be done.

This is what interdependence and mutual accountability look like. We need big institutions like the United Way Worldwide to make it possible. You can become the Internet of Help.

I'd be happy to discuss further, at your convenience. Thank you for your time.

Sincerely,
Greg Bloom

CIRCULATION MEMO

**Community Directory Data in the District of Columbia:
What can be done?**

Memo by Greg Bloom (greg.bloom@gmail.com; 202.643.3648) - Research Fellow, Provisions Library

Short and sweet:

We have an opportunity to establish a dynamic, open directory of all non-profit agencies and public services in the District of Columbia. We've consolidated several large databases containing different kinds of data about local non-profits, and we intend to 'open up' this data set as a shared resource for various stakeholders and applications.[1] Moving forward, we propose that -- through a multi-faceted process of community engagement -- this open data set should be collaboratively organized, cooperatively managed, and freely used by applications that can demonstrate its value. We need to find local institutional support for such an undertaking, and also to integrate our local work with broader efforts to establish universal data exchange standards that can enable this data to integrate with other systems. Successful outcomes will make it easier for people to access critical services, easier for organizations to work together on complex issues -- and easier for communities to understand their own assets and needs. (Graphic illustrations here)

The Problem:

Collectively, the District of Columbia lacks an easy way to aggregate and share essential data about the many services that are available to residents who need help. There are a variety of directories published by agencies, organizations and networks, but these directories are produced and maintained independently, and the resulting system is fragmented, chronically out of date, and not standardized. People and organizations spend time chasing information instead of building better applications or providing additional services. This status quo is wasteful and aggravating, but the community lacks a clear locus of leadership through which to work towards solutions.

After dialogue with an ad hoc group of local stakeholders, DC's Department of Human Services (DHS) has soft-launched a new 2-1-1 initiative with iCarol, a proprietary third-party info+referral platform. The government will dedicate limited resources to data collection and maintenance, and it is unclear whether iCarol will enable real-time data sharing with other applications and

systems. While the government can play an important role in collecting data about community resources, a more cooperative, distributed approach is now technologically possible -- and would be far more effective.

This problem is not specific to D.C., and in recent years a number of attempted solutions have cropped up around the country -- such as Code for America's Open211 project, and startups like Aunt Bertha and Purple Binder. Open211 did not succeed in large part because it lacked not only data but also taxonomic structure (the standard 2-1-1 taxonomy is proprietary, owned by the Alliance of Information and Referral Systems). Aunt Bertha and Purple Binder appear to be providing effective case management software solutions to non-profit organizations -- but if implemented independently, these entrepreneurial solutions still result in enclosure of data about local community services.

The openness of this public data is a first-order concern. Rather than trying to build 'the right application,' we believe that a truly effective solution must first establish community resource data as *a commons* (a cooperatively managed resource, open to an ecology of stakeholders and applications). This approach will in turn make it much easier for the emergence of tools like Open 211, Aunt Bertha, Purple Binder, and others not yet imagined; in the long-run, it will greatly enhance the capacity for people to understand and make decisions about their own communities.

A proposed path forward

1) **Establish *a common data pool*** by merging multiple local databases (see *Stakeholders*, below) into a single consolidated file in which each organization is assigned a unique ID. We have already accomplished this merge! The next step is to make this common data pool accessible via **an Open API**.

2) **Apply *an "open" taxonomy*** to organize the common data pool. The proprietary status of 2-1-1's AIRS taxonomy has been an impediment to innovation, but Aunt Bertha has recently published an alternative 'open' taxonomy at OpenEligibility.org.[2] This organization could be 'co-produced' through participatory community events ('data frolics') that also educate and initiate dialogue about the future of the 'data commons.'

3) **Establish a *cooperative charter***, which lays out rules and expectations for the sustained viability of the common data pool. This step could potentially entail the formation of **a *"data coop"*** -- a membership organization offering premium services to all local entities for a fee or for commitment of time for data management.[3]

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[1] These databases include: a) the local government's 2-1-1 system (without its accompanying taxonomy, which is proprietary), b) the federal government's IRS filings, mined from 990 Forms by the National Center for Charitable Statistics (the Urban Institute), c) the Bridge Project, a research initiative of George Washington University, and d) the internal information-and-referral database of Bread for the City, one of DC's largest service providers. By integrating local, federal, academic, and front-line data, we may have the best possible set of information about local non-profit organizations.

[2] Further evaluation is needed to confirm the viability of Open Eligibility. Also, it's important to note that Open Eligibility is currently licensed as 'non-derivable,' which means that if local providers wish to make any modifications, we will need to lobby Aunt Bertha for those modifications, or for a change in the license (they seem open to this dialogue), or go back to the drawing board.

[3] See http://datacommons.find.coop/vision for a recent precedent of a 'data cooperative.'

4) **Demonstrate potential through initial applications**, such as mobile information-and-referral services; feature-rich software for case managers and social workers; a LocalWiki that serves the structured data alongside unstructured space for users to contribute 'tacit' knowledge, etc.

5) **Engage users in participation** via an accompanying set of social programs for various community spaces, levels of skill, applications, and purposes. For instance: resource mapping projects in social service and civic contexts; digital literacy training for LocalWiki at libraries; regular "hackathon"-style opportunities for experimentation with diverse user groups.

A call for leadership

It's important to note that the progress made so far *has not been institutionally driven*. Though everyone would benefit from common solutions, stakeholders currently lack either means or incentives to take 'commoning' actions. **Supportive intervention may be necessary to realize the potential benefit of a common approach**. Such interventions could entail:

- Sponsorship of key organizing roles, with an accompanying plan for meaningful incentivization of associated labor (such as a 'timebanking' framework).
- Institutional support for a cooperative development process, potentially commencing with the formation of an Advisory Council and/or the launch of a Feasibility Study to evaluate the viability of the Open Taxonomy, the 'common data pool' management plan, the Data Coop, etc.
- Institutional support for development of a *universal data exchange schema* (common standards) that can enable differently-taxonomized systems to 'talk' to each other. Possibly in collaboration with similar initiatives in other cities.

Institutional Stakeholders

Local social service providers - **Bread for the City** is one of D.C.'s most prominent and comprehensive agencies, and the first to contribute its database to the common data pool effort. BFC is developing innovative case management functionality (via its new Salesforce system), and stands to benefit from reliable, integratable referral data. BFC is a prospective champion and anchor site for future development.

Local community directory projects - initiatives like The BRIDGE Project have worked to fill the gap left by an inactive 2-1-1, and stand to benefit greatly from a common data pool -- in that they can refocus their efforts on development of value-added applications for specific stakeholders (like universities, in the BRIDGE's case).

DC Government (DC 2-1-1) -- the government clearly stands to benefit from an arrangement in which their 2-1-1 system can receive regular updates from the community, and in which their own updates are immediately disseminated through widely-adopted channels. They won't lead on an open-source community-based initiative, but If we build it perhaps they will come.

The Urban Institute's National Center for Charitable Statistics has merged its database of federal Forms 990 data with the databases of the above community groups. Future cooperative development of a data commons may yield not only better data for its system, but also institutional demand for Urban's 'Community Platform' software, which can be tailored specifically for a range of 'grasstops'-driven community initiatives.

Local technologist networks (Code for America DC Brigade; DC Tech Meetup) are always looking for opportunities to contribute to the community, and the establishment of a data commons may yield opportunities for scalable, high-visibility projects.

DC Public Libraries - both a site of need for information-and-referrals, and natural partners on a community data project, DCPL provides space, hands-on programming (digital literacy courses and workshops), and on-site access to applications.

Support Links

- **COPY RIGHTS Presentation:** Community Resource Directories and the Future of Knowledge and Democracy, by Greg Bloom, 2013 research fellow @ Provisions Library.
- Spreadsheet of all known resource databases in DC.
- Ongoing Commmunity Resource Platform working group meeting notes
- DC Community Resource Platform Google Group
- DC Community resource platform Wiki
- OrgPedia proposal and report on Liberating Federal 990 Data
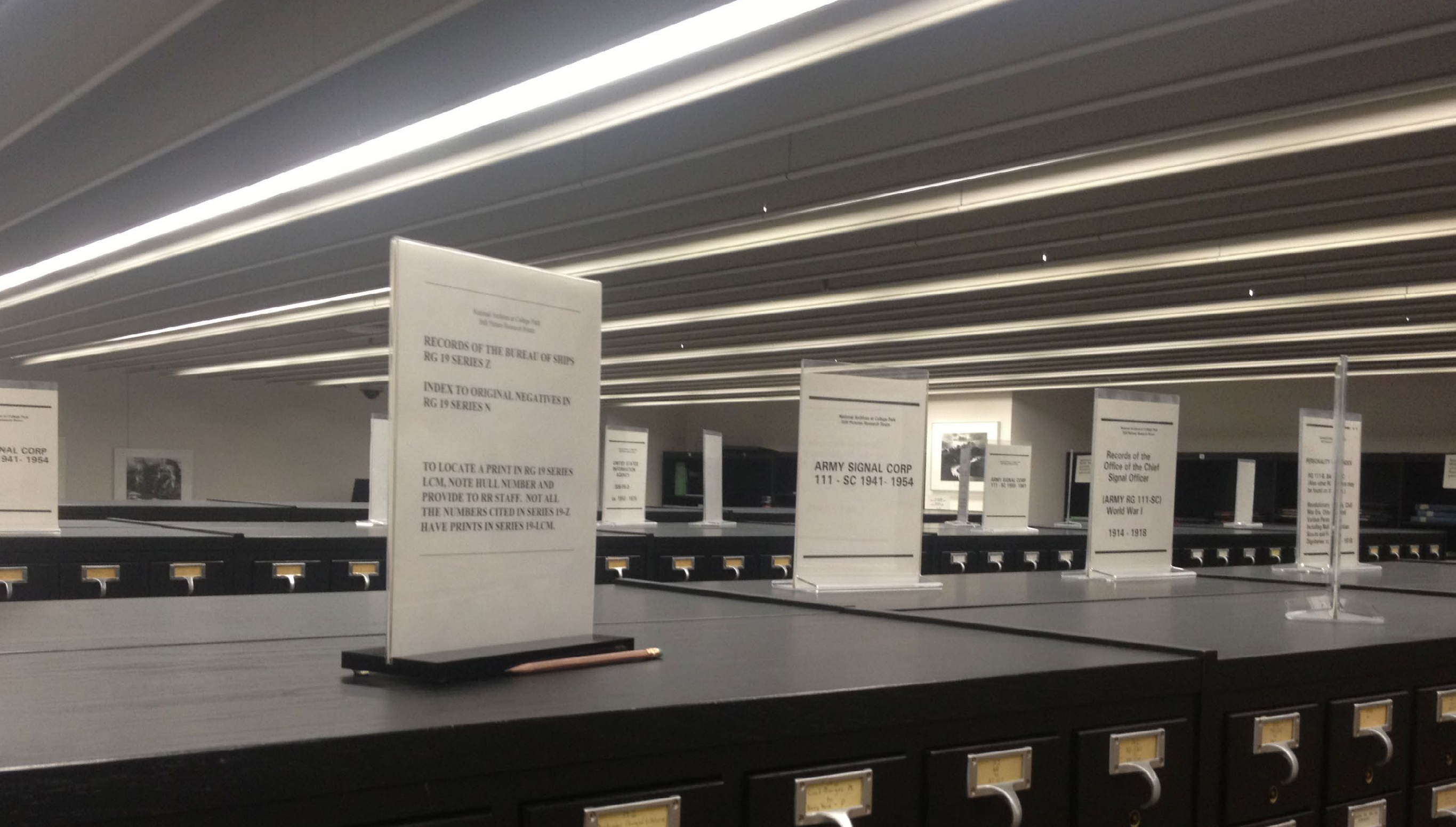
APPENDIX

FELLOWS

NATE LARSON

Nate Larson (Baltimore, MD) is a full-time faculty member in the photography department at Maryland Institute College of Art in Baltimore. His work with photographic media, artist books, and digital video has been widely shown across the US and featured internationally in Canada, Poland, Russia, Hungary, Australia, the Netherlands, Greece, Belgium, the UK, and Spain. Numerous publications and media outlets have featured his projects, including *The New York Times*, *Utne Reader, Flavorwire, the BBC News Viewfinder, Frieze Magazine, the British Journal of Photography, Marketplace Tech Report, Art Papers, C Magazine, Exposure, The Washington Post*, and *Afterimage*. His photoworks and artist books are included in the collections of the *Museum of Fine Arts Houston, the Cleveland Institute of Arts, the Center for Photography at Woodstock*, and *the Museum of Contemporary Photography Chicago*. He currently serves on the board of directors of the *Society for Photographic Education*. His current project, *GEOLOCATION*, in collaboration with Marni Shindelman, tracks GPS coordinates associated with Twitter tweets and pairs the text with a photograph of the originating site to mark the virtual information in the real world. New site-specific work from the series was recently completed for *Third Space Gallery* in New Brunswick, the *Walter N. Marks Center for the Arts* in California, and the *Format International Photography Festival* in the UK. Their first New York solo exhibition of the project was with *United Photo Industries* in January 2012. They are currently developing a new site-specific series for the 2012 *Atlanta Celebrates Photography Public Art Commission*. (http://www.natelarson.com/)

ANNE ELIZABETH MOORE

Anne Elizabeth Moore (Chicago, IL) is a Fulbright scholar and the Truthout columnist behind Ladydrawers. Author of *Unmarketable: Brandalism, Copyfighting, Mocketing, and the Erosion of Integrity* (The New Press, 2007) and *Hey Kidz, Buy This Book* (Soft Skull, 2004), she is also the co-editor and publisher of the now-defunct *Punk Planet* and founding editor of the *Best American Comics series from Houghton Mifflin*. Moore teaches at the *School of the Art Institute of Chicago* and works with young women in Cambodia on independent media projects. She exhibits her work frequently as conceptual art, and has been the subject of two documentary films. She has written for *N+1, Good, Snap Judgment, Bitch, The Progressive, The Onion, Feministing, The Stranger, In These Times, The Boston Phoenix*, and *Tin House*. She has twice been noted in the *Best American Non-Required Reading series*. Her work with young women in Southeast Asia has been featured in *Time Out Chicago, Make/Shift, Today's Chicago Woman, Windy City Times*, and *Print* magazines, and on *GritTV*, Radio Australia, and NPR's *Worldview*. She recently mounted a solo exhibition at the *Museum of Contemporary Art in Chicago*. Her latest book, *Cambodian Grrrl* (Cantankerous Titles, 2011), looks at independent culture, globalization, and women's rights in Southeast Asia. (http://anneelizabethmoore.com/)

TIM SCHWARTZ

Tim Schwartz (Los Angeles, CA) grew up in St. Louis, MO. He received a BA in Physics from Wesleyan University and an MFA in Visual Arts from the University of California, San Diego. In January 2010, he developed a technology to help reunite missing people affected by the earthquake in Haiti and now co-runs an organization dealing with family reunification. In 2011, Schwartz spent four months traveling the country in a mobile research laboratory investigating what is lost as physical archives become digitized. (http://www.timschwartz.org/)

GREG BLOOM

Greg Bloom (Washington DC) has worked as an organizer in electoral campaigns, death penalty abolition battles, municipal budget fights, labor struggles, chicken liberation movements, and most recently as an internet infrastructure instigator. Greg believes that the best thing an organizer can do is connect people with space, tools, and each other and then get out of the way. He's currently facilitating the development of a digital justice movement in the District of Columbia.

THANKS

COUNCIL

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REFERENCE

ORGANIZATIONS

Berkman Center for Internet and Society and their YouTube channel

Open Technology Institute

Electronic Privacy Information Center

Center for Social Media (American University)

Electronic Frontier Foundation

Open Culture

BOOKS

Tubes: A Journey to the Center of the Internet, Andrew Blum

Manufacturing Consent: The Political Economy of the Mass Media, Noam Chomsky

The Information: A History, A Theory, A Flood, James Gleick

Future Perfect: The Case For Progress In A Networked Age, Steven Johnson

Free Culture: The Nature and Future of Creativity and The Future of Ideas: The Fate of the Commons in a Connected World, Lawrence Lessig

Consent of the Networked: The Worldwide Struggle For Internet Freedom, Rebecca MacKinnon

Filter Bubble, Eli Pariser

Present Shock: When Everything Happens Now, Douglas Rushkoff

Liars and Outliers: Enabling the Trust that Society Needs to Thrive, Bruce Schneier

Here Comes Everybody: The Power of Organizing Without Organizations, Clay Shirky

Too Big to Know: Rethinking Knowledge, David Weinberger

The Master Switch: The Rise and Fall of Information Empires, Tim Wu

The Future of the Internet--And How to Stop It, Jonathan Zittrain

Women and Economics, Charlotte Perkins Gilman

FROM PROVISIONS LIBRARY

Bound By Law? (Tales from the Public Domain), Keith Aoki
Taking the Matter into Common Hands: On Contemporary Art and Collaborative Practices, Johanna Billing
Dismantling the Public Sphere, John E. Buschman
The Cultural Life of Intellectual Properties: Authorship, Appropriation, and the Law, Rosemary J. Coombe
The Copyright Handbook: How to Protect and Use Written Works, Steve Fishman
The Information: A History, A Theory, A Flood, James Gleick
The Future of Ideas: The Fate of the Commons in a Connected World, Lawrence Lessig
Fair use : the story of the letter U and the numeral 2, Negativland,
The Book on the Bookshelf, Henry Petroski
Public Knowledge, So What... About Copyright?
Exit Strategy (open source e-book annotated by online readers), Douglas Rushkoff
Information Inequality, Herbert I. Schiller
Protect or Plunder, Vandana Shiva
net_condition: art and global media, Peter Weibel
All That We Share, Jay Walljasper
Questioning Technology, John Zerzan & Alice Carnes (eds.)

ESSAYS

The Ecstasy of Influence: A Plagiarism, Jonathan Lethem,
http://harpers.org/archive/2007/02/the-ecstasy-of-influence/
Lockdown: The Coming War on General Purpose Computing, Cory Doctorow,
http://boingboing.net/2012/01/10/lockdown.html
Remix: Making Art and Commerce Thrive in the Hybrid Economy, Lawrence Lessig
http://archive.org/details/LawrenceLessig

Copyright Law and Policy
Individualism and Collectiveness in Intellectual Property Law, Jan Rosén, ed. (Edward Elgar, 2012)
Google Books Link.
A Short Policy Analysis of Copyright Law and DRM in the United States, Bill Rosenblatt, 2006
http://www.itas.fzk.de/tatup/062/rose06a.pdf
Copyright And `The Exclusive Right' Of Authors, *Professor* Lyman Ray Patterson, Pope Brock Professor of Law at the University of Georgia.
(*Journal of Intellectual Property, Vol. 1, No.1, Fall 1993*)
The Nature of Copyright: A Law of Users' Rights, L. Ray Patterson and Stanley W. Lindberg (The University of Georgia Press, 1991).
Copyright in the New Millennium: Resolving the Conflict between Property Rights and Political Rights, L. Ray Patterson

(62 OHIO ST. L.J. 703 2001.)

Steal This Music: How Intellectual Property Law Affects Musical Creativity, Demers, Joanna Teresa. (University of Georgia Press, 2006.)

International IP Infosheets

Electronic Frontier Foundation

https://www.eff.org/search/site/international%20ip%20infosheets

Applicability of the first sale doctrine to digital music: Capitol Records LLC v. ReDigi Inc., Billy Barnes (blog post) http://www.iposgoode.ca/2010/04/first-sale-and-digital-content/

History and Theory of Copyright

Hollywood's Copyright Wars: From Edison to the Internet, Peter Decherney (Columbia UP, 2012)

Authors and Owners, Mark Rose, Harvard University Press, 1995

The Nature of the Book, Adrian Johns (University of Chicago Press, 1998)

An Unhurried View of Copyright, Benjamin Kaplan (Columbia University Press, 1967)

Ontology of Cyberspace Philosophy, Law, and the Future of Intellectual Property., Koepsell, David R. (Open Court, 2000.

Online Copyright Resources for Primary Source Material

Copyright Act of 1976, as Amended (1994).

http://www.law.cornell.edu/uscode/17/ (full text of the US Copyright law with search capability)

Copyright Information Page.

http://www.lib.umich.edu/libhome/copyright/

Copyright - Intellectual Property Rights - Fair Use.

http://www.oberlin.edu/~art/vra/copyright.html

The Copyright Website.

http://www.benedict.com/homepage.htm

ARTICLES

http://www.nytimes.com/2012/06/01/arts/design/richard-prince-14-paintings.html?ref=richardprince
http://www.npr.org/2012/05/16/152844727/canal-zone-collages-test-the-meaning-of-fair-use
http://glasstire.com/2012/05/29/richard-prince-copyright-infringement-case-update-appeal-outcome-uncertain/
http://www.trademarkandcopyrightlawblog.com/
http://www.wired.com/threatlevel/2012/07/people-staring-at-computers
http://www.nytimes.com/2012/09/23/magazine/the-internet-we-built-that.html?_r=0

http://m.wired.com/threatlevel/2012/01/scotus-re-copyright-decision/

DOCUMENTARIES

Internet Rising

Getting Past the Barbed Wireless

Gena Konstantanakis: Internet Must Go