Michael Mandiberg

Invoice for Art + Technology Award

When	November 11, 2016
For Whom	**Los Angeles County Museum of Art** 5905 Wilshire Blvd. Los Angeles, CA 90036
Pay to	████████████
What	LACMA Art + Technology Award 2/6 of total budget (4 months progress report)
How Much	████████
Signed:	

Michael Mandiberg
LACMA Art + Technology Award
November 1st 2016, Progress Report

This progress report covers 5 months of work from June to the end of October 2016. Please see the appendix for an updated timeline, and photos/screenshots.

In June I visited in Los Angeles to meet with the other grantees, museum staff and advisers. During my informal presentation I shared the key development that happened between the date of my application and my acceptance: one project had become two projects. I applied with a project about digital labor; I proposed to remake Charlie Chaplin's film "Modern Times" by parceling it out shot-by-shot to digital laborers on online gig-economy marketplaces. During the period between my application and my acceptance, I developed a second interrelated project about digital labor; I had begun tracking all of my own labor, in an effort to understand the material and philosophical ramifications of what I do.

A Preamble

A year ago, I gave a talk at the Hannah Arendt Conference at Bard College. The theme of the conference was privacy, which Arendt had written a fair amount on. I was being brought in to speak about a series of Internet-based projects I did in the early 2000s. They experimented with the ways in which Internet technologies enabled, and even encouraged, over-sharing. I was not particularly well-versed in Arendt's work, and in my preparation one of the things I learned was that she held artistic labor in a separate category from other labor, arguing that it was unalienated. During the conference I heard many historians and humanistic philosophers refer to this idea of unalienated artistic labor, and while I do think that there is something true to what she is saying, I also think it romanticizes the day-to-day workings of a contemporary artist. So when it was my turn to speak I told them about my experiments with privacy, but I also told that the way they were talking about creative labor had very little to do with the way in which I am compelled to work. Most of what I do is write emails, proposals, and other documents such as this one that I'm writing right now. Depending on my level of production, I have between one and three assistants that get to do the fun work: writing code, fabricating sculptures, designing, or digital imaging. These things are fungible. My emails, and my decisions, are not.

In the weeks after that conference these ideas continued to percolate in my mind. I kept wondering whether my statements at that conference were actually true. Do I really just write emails? And how much work do I actually do? And also: what

constitutes work, and what isn't work? I discussed these ideas over lunch with two artist friends and collaborators, Pablo Helguera and Caroline Woolard. I told them I was thinking of tracking all of my time, and Caroline suggested there were probably commercially availab etools that did that.

Sure enough, there were lots of tools. I rushed to get everything set up before New Year's, researching and testing various tools and software. I am using tools such as Rescue Time, Fitbit (heart rate, sleep), Moment, Reporter, my Google Calendar, and structured timesheets for my assistants, as well as custom surveillance software created for my Mac and iPhone that takes screenshots and webcam photos every 15 minutes. The true irony is that I relied heavily on assistants to hit that January 1st deadline, as I was too maxed out with all of my other responsibilities. I had to contract wage labor in order to understand my own labor.

These tools have been created as part of Quantified Self, a techno-utopian movement that aspires to self-knowledge through self-tracking one's personal data with technology. I am creating a critical *Quantified Self-Portrait*. I will use myself as a proxy to hold a mirror to a pathologically overworked, and increasingly quantified society, revealing its own political economy of data. This self-portrait is also a symbol of the artist today not as an individual laborer, but as someone who is part of a larger network of workers, agents, and organizations.

I see *Mechanical Tramp* and *Quantified Self-Portrait* as two parts of an exploration of contemporary digital labor. *Tramp* looks outward, and uses digital labor markets to peek into the lives of others as they work. *QSP* looks inward at my own labor, using it not for narcissistic purposes, but rather to stand in for the experiences of others. While these two pieces share a theme, they do diverge in form. They also diverge in geography and class: I speak from a position of privilege in the U.S.; the Turkers speak from a more varied class and geographic location. Ultimately both are about the changing nature of work and the workplace, whether for artists or piecemeal laborers in the digital factory.

Late-June Status

When I came out to Los Angeles I had just started to wrap my head around what forms this project might take. With most of my projects I have a pretty good sense of the whole before the enactment begins. In part, this is because my work is often rule- and systems-based; the rules describe a kind of conceptual logic or score that

plays out in the work. In this case it was clear that the year would play out and I would have a whole lot of data, but I was ensure what else I might have, or what I might do with it, with the exception of the screenshots piece. This sense of uncertainty was unfamiliar, and somewhat uncomfortable.

July and August: MacDowell Colony

I spent six weeks at the MacDowell Colony working on these projects. My efforts to make progress with the Chaplin film were thwarted by an overeager moderation filter on the platform I had been using. Only one of the ten requests that I posted were allowed on to website Fiverr.com. This is what that request looked like:

All the rest of my requests were blocked:

I did some research, and it seems that during the year between my making the one minute proof concept sketch, and when I went back to work on it in July, Fiverr.com had settled a lawsuit that Amazon had brought against them, alleging that they enabled users who were offering to write fraudulent Amazon reviews for a fee. It seems as if part of the settlement was the institution of an aggressive moderation system to filter out such illegal, and unethical requests. It seemed as if my requests were getting caught in that Dragnet, as they did not look enough like normative commercial behavior. The things I was asking for must have made no sense to the moderators. After about 10 rejected *gigs* (the Fiverr.com term for a job), I realized that I was going to have to try to find away into Fiverr.com from

the inside. That was not going to be very easy to do from New Hampshire, especially given the limited Internet and cell phone access.

I decided that my energy was better spent working on the *Quantified Self-Portrait*. I scheduled myself for an open studio talk to give myself a concrete deadline; this talk would form the foundation for my September talk at LACMA. I had been making slow and steady progress on some parts of the project, but others were left in an entirely conceptual state, and I had not put them all down in one place. I produced sketches for each of the following (see appendix for photos):

1. A website that ingests and visualizes all of the data from the many sources.
2. A two-channel video of photos and screenshots (sketch for channel 1: ██████████████ - for channel 2: ████████████ - password: ████████).
3. An audio piece with my heartbeat: a yearlong audio installation, which sonifies my heart rate alongside the sound of my email, phone and social media data alerts for that year. The piece will last one year, representing the data of the exact date and time from this year.
4. An alarm app that rings at the same time that I woke and fell asleep for the year.
5. A Google Calendar that will have all of the granular data in one place, viewable in a calendar app.
6. All of that same data written back into an actual, paper weekly planner (as an artist book? So much work!).
7. Images of my journals, which I write in every evening.
8. The short 1-3 sentence summaries of these daily reflections. Not sure what form this should take: scrolling video? Handwritten cards? SMS service that sends them to everyone who subscribes?
9. The to-do lists I wrote at MacDowell.

September: Los Angeles visit

I visited Los Angeles September 20-25th to give a public talk and meet with LACMA staff and advisors. I gave a talk on Thursday September 22nd where I presented some recent work, as well as this forthcoming project for the LACMA Art+Technology Award. I treated it as something of a hybrid between an artist talk and a studio visit/critique, sharing failures, successes, and uncertainties, all the

while soliciting feedback from the audience. They got a window into my process and I got some useful feedback.

I had meetings at LACMA to discuss: the project timeline, the realization that the Chaplin film is going to take longer than expected, strategizing about finding a way into Fiverr.com, and the potential installation of works. In particular we talked about the heartbeat piece, and the two-channel *1 Year Performance* video. I also met with tech advisors who laid some groundwork for closer work in January and February.

October: Production!

I made significant progress on the two-channel video, and the heartbeat piece. For the video, I wrote code to sort files, and assembled a complete version up to early October. This includes iPhone photos. I made one where I centered my face, which allowed me to make the decision to not center faces. For the heartbeat piece, I have a proof of concept for extracting the data: heart rate by minute, and all email timestamps from .mbox. I continued to work with Joel to figure out what is possible at the Museum, and try to work through some of the technical details of that. I also made a sketch for a video version of the daily reflection texts; this would be a vertical scrolling text that would last about 25 minutes. I'm unsure about it, either as a standalone piece, or as a three-channel video for Ray's, but have some time to decide.

I have made some progress on the Fiverr problems. I had a meeting with a technology researcher that one of the advisors introduced me to; he has shared the project with his contact at Fiverr, who apparently liked the project. This Fiverr contact was out of town, so we are waiting for their return before our next steps.

I have also made the decision with Denny Gallery to move my exhibition to October, which will give me more time to complete the work.

Near term goals:

Some of the things I will be working on over the next two months:

LACMA: Settle on dates for January/February public program. Confirm 100%

that I can install the heartbeat piece, and decide on the location. Determine the start date for Ray's install of the video.

Video: Resolve whether the three-channel video installation will include the daily reflection video or not. Figure out what video formats to use for the very large screenshots, given that they are not the same aspect ratio and are much bigger than the screen they will be displayed on. Decide on a title, given that I am using *Quantified Self-Portrait* and *1 Year Performance*; this is relevant for both the video and the heartbeat. After January 1st, it should only take a day or two to complete the video.

Heartbeat: I am planning on writing an app that converts the collected data (heart rate, email/alert timestamps) into heartbeat and email/alert sounds. The code itself will be fairly simple, accessing the date and then reading the corresponding JSON or XML file for the day. I was thinking I would run it off of a Raspberry Pi, as that will be small and easy to hide. I need to finalize the decision about what software language to write the heartbeat app in to future proof the software as much as possible; one of the advisors suggested Java will be the most stable, but that I might be able to get away with Javascript (but would I then need node.js?). Once I determine which language to use, I need to make an alpha version with data from the first few days. At first I will use the Foley audio, but I also need to record my heartbeat at each of the different heart rates. The goal is to have a finished version with the first six months of heartbeat and email data in LA for a late December install.

Middle-Term goals:

Install heartbeat piece for a January 1st start. Render screen shot video for a February start. Arrive in LA January 22nd to start a one-month residency at 18th Street Projects. Present additional public programs at LACMA.

<u>Appendix: Updated Timeline</u>

<u>Sept/Oct</u>
Research/Feasibility for QSP
Diplomacy for Chaplin film re: Fiverr

<u>Nov/Dec</u>
QSP All Data in Database
QSP fabricate heartbeat app
2-Channel Video ready to go.
Have a plan for Chaplin & implement

<u>Jan/Feb</u>
1 year audio ready (installed?)
1 year video ready (installed?)
QSP Visualization (in LA with Advisors)
Chaplin progress

<u>Mar/Apr</u>
Chaplin focus

<u>May/June</u>
Chaplin

<u>July/Aug</u>
Finish Chaplin (done)

<u>September</u>
QSP finish misc for Denny Gallery show

<u>October</u>
Denny Gallery show

Appendix: Photos
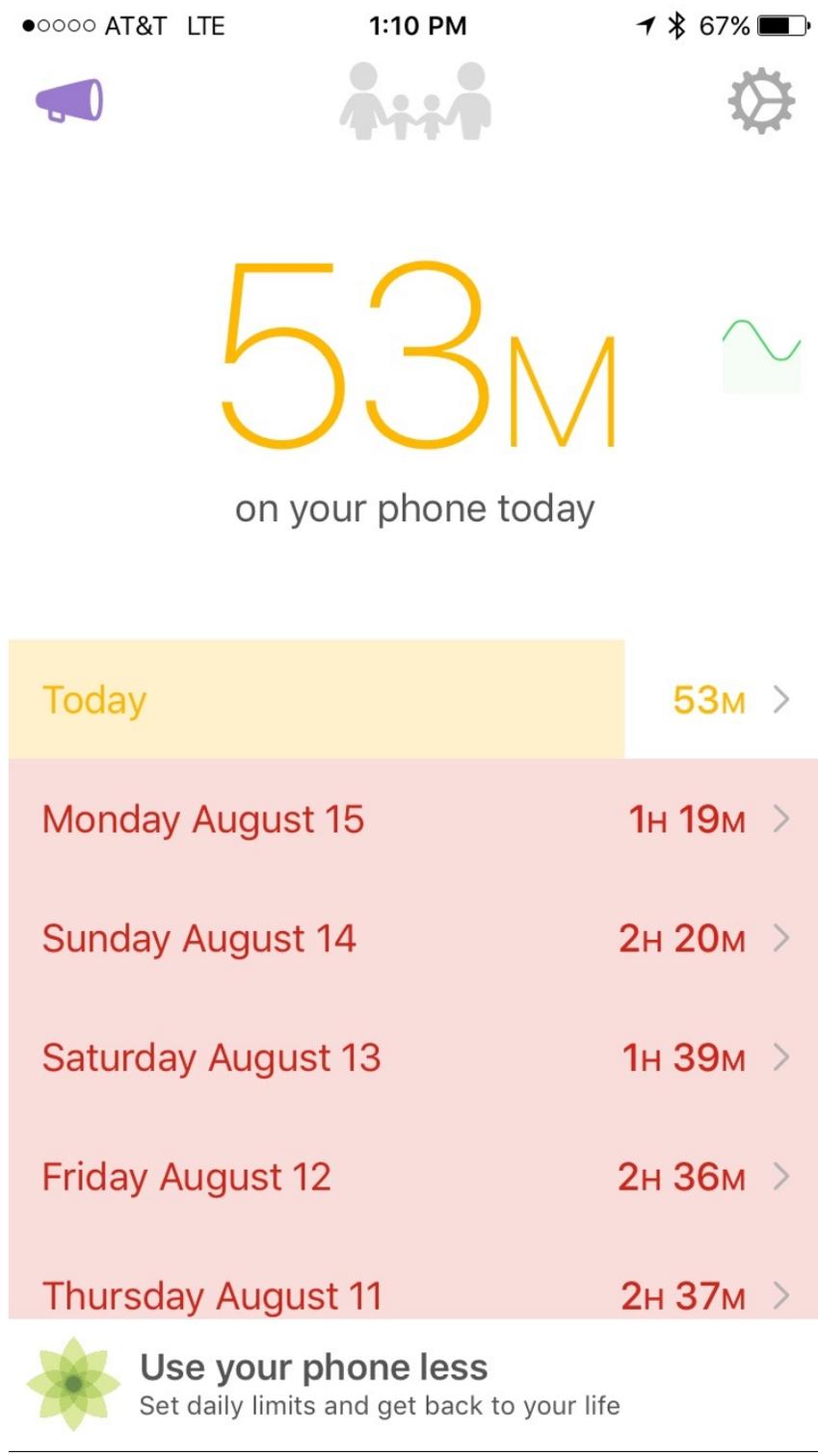
Moment.app, for tracking iPhone usage.

📍 PETERBOROUGH, NH

☁ CLEAR, 77° F JUST NOW

⛰ 854 FEET

📷 2 PHOTOS ADDED

🎤 EXTREMELY QUIET 30.90 DB

👣 O STEPS TAKEN

📶 O STAIRCASES UP O DOWN

WHAT ARE YOU DOING?

Art   Making

Admin

Jackie

CSI

Travel

Email

NYAD

CANCEL   • ● • • • •   NEXT
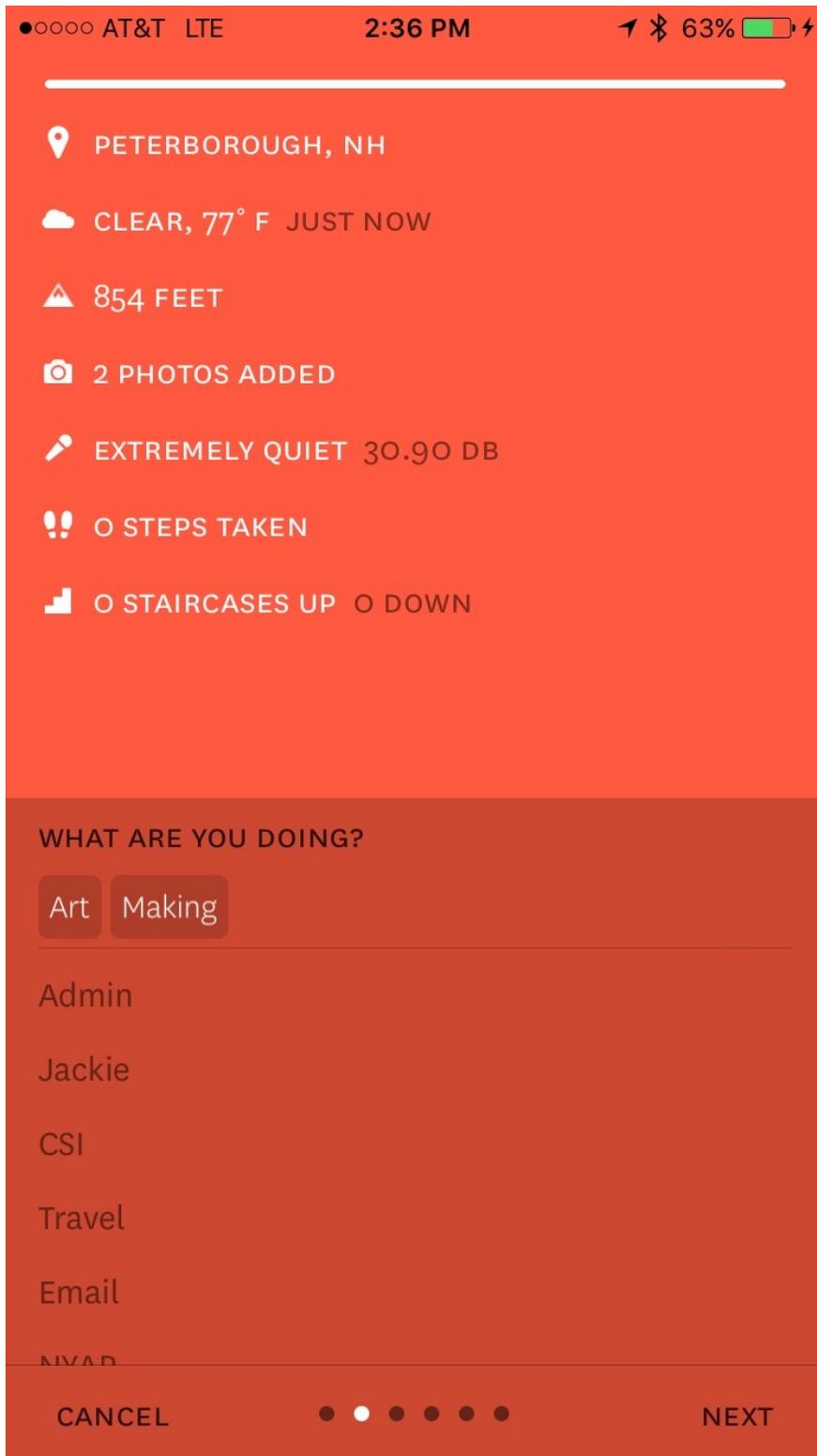
Reporter.app, which I am primarily using for end of day summaries.
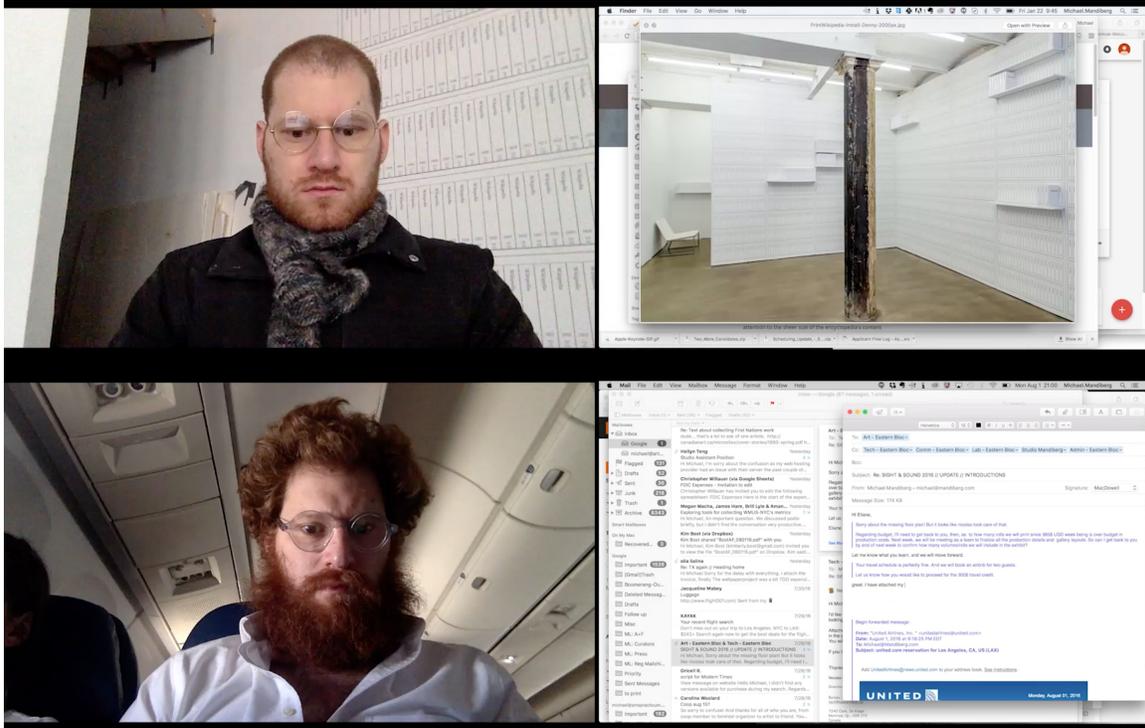
Quantified Self-Portrait: two stills from the two channel video. (January and September). Photo automatically taken from my iPhone or Macbook every 15 minutes
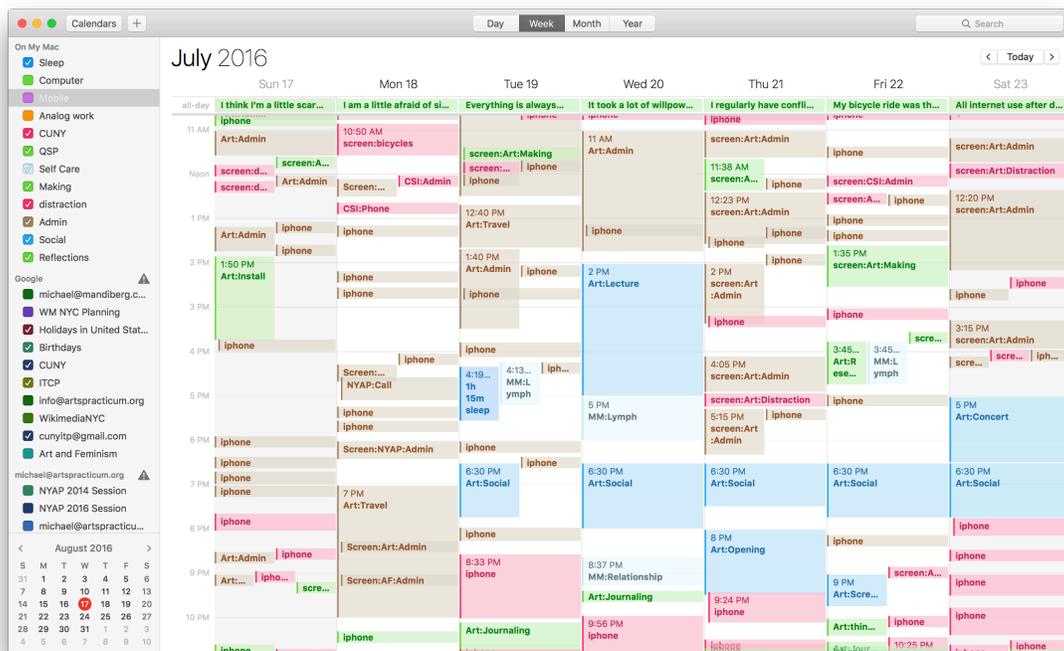
Quantified Self-Portrait: Mockup of Google Calendar output of all data

Quantified Self-Portrait: MacDowell Colony notes. Do these have a place in the project???

Michael Mandiberg

Invoice for Art + Technology Award

When	March 6, 2017
For Whom	**Los Angeles County Museum of Art** 5905 Wilshire Blvd. Los Angeles, CA 90036
Pay to	███████████████ ████████ ███████ ████████████
What	LACMA Art + Technology Award November – February progress report
How Much	██████████
Signed:	

Michael Mandiberg
LACMA Art + Technology Award
Feb 18th 2017, Progress Report

This progress report covers 4 months of work from November 2016 through February 2017.

Since my last progress report, we settled the dates and locations and installed and opened the first two components of the public presentation of *Quantified Self Portrait (Rhythms)*, the audio component, and *Quantified Self Portrait (One Year Performance)*, the video component. We determined an overall title for the project: *Workflow*, which encompasses all of the various projects, works, and installations. After compiling photos and videos throughout all of 2016, *One Year Performance* is now complete and was just installed at Ray's and Stark Bar, starting February 16th for six months. Since January 1st, *Rhythms* has been installed in the Pritzker elevators, and will run through December 31st. Please see the appendix for an updated timeline, and photos/screenshots.

November 2016

I began working through the technical issues of presenting *Rhythms*, which was to be installed for a January 1st premiere. How many elevators would it be shown in, and how? I decided on small, standalone speaker devices, to be placed on the elevator ceilings. The issue this raised was power – would they be battery operated? Would we be able to power them that way for an entire year?

After some consultation, Joel found that there was enough space to put speakers and a Raspberry Pi above the ceilings of the elevators, using a top approach done by the elevator company. The speakers and Pi had to be powered by auxiliary power in the elevator: it could not be powered by the line that ran the elevator. As it turned out, there was a second line coiled into the traveller cable, and LACMA added a power plug to the end of that inside the cab.

I also consulted with Brian Mulford from Google about the best form of code in which to write *Rhythms*, and settled on Java, as we both agreed that is the most consistent and unchanged format available. (Despite neither of us liking the idea of writing in Java.) My decision hinged on the idea that the rPI is fungible, since the hardware itself is not the art piece. If *Rhythms* is reinstalled 20 years from now, the hardware will be different, and my hope is that by writing it in Java, there will be an equivalent and better hardware that will be able to execute it.

December

Using a digital stethoscope, I recorded my heartbeat for *Workflow (Rhythm)*. My team and I spent the day recording my heartbeat on a bicycle set up on a stationary trainer, doing ~10 exercise cycles peaking my heart rate at 150, then letting it fall. A raw recording of the heartbeat can be found at http://bit.ly/2jHdct6.

The stethoscope we used has two EQ modes, bass and midrange. Midrange is still primarily bass, but higher up; apparently there are medical reasons for this. We recorded a full set of audio in both modes, with the thought that at a later date an audio expert could make an informed decision based off the speakers, space, mounting, etc.

Importantly, we extensively tested HiFiBerry, and were able to get it to work. For *Rhythm*, we are using the HiFiBerry DAC+ HAT - Standard RCA, which we also had to find a special case for, as the version of HiFiBerry we created no longer fit in the existing case.

We refactored the code, so that it could work with audio that is only one beat long. However, we discovered some issues about clipping sound at the end of the sound file, as well as it throwing an error on Raspberry Pi. In spite of these problems, we were able to make a workable version to use, with the potential for creating a version with a library of beats to play at random, to add texture to the sound.

TK, the audio engineer I contracted to help with the recording, expressed concern about Bluetooth speakers generally, noting that the quality varies widely, especially in the bass range. I researched a variety of speakers, and settled between two choices (one of which is slightly better but more expensive), to be finalized in Los Angeles by Joel.

TK also noted that speaker placement would have as significant an impact on the nature of *Rhythms*' audio as the speaker quality does. He expressed concern about placing the speaker in a housing box, as that muffles the sound. To troubleshoot this preemptively, we tested the speaker on a wood floor, turning it into a resonant body. TK suggested affixing the speaker to a larger body in order to amplify the sound.

Around this time, not only did I have to organize the closing reception of my show *FDIC Insured* in New York's financial district, but I also lost my studio of the past seven years in Brooklyn (the building is being converted into condos). Between finishing the necessary parts of *Workflow* and settling these issues in New York before my 2017 trip to California, December was a frantic month. Regardless of juggling these issues, *Workflow* was completed before the New Year, and *Rhythms* was successfully installed for its January 1st premiere.

January + February (in LA)

On January 1st I shaved my beard and got a haircut. ;-) That day *Rhythms* successfully started itself at LACMA, and is now running smoothly. In addition, the data for *One Year Performance* is now complete, and I spent the month cleaning the data to get it ready to be installed for the February 16th premiere. I arrived in Los Angeles on January 22nd to start my one-month residency at 18th Street Projects. It was really valuable to present in LA for the final stages of the piece. I made several trips to the site, and had a really valuable studio visit with Erin Wright. The work changed in subtle but important ways by virtue of these visits, including adjusting tombstone format/timing, changing font sizes, changing render settings to an uncompressed codec. We had some issues with the Cedna device that does the three-screen playback: the SSD wasn't big enough, so Patrick Heilman had to rerender the files on install day. This rerender lead to some problems with length, but we resolved those manually, and a working version was up and running early the next day (well in advance of the opening). The *One Year Performance* videos are now

installed in the Stark Bar, and we had a successful ~30 person reception for some of my artist peers, Art + Technology Lab advisors, LACMA curators and staff, and LACMA Director Michael Govan attended as well.

Working with LACMA on *Workflow* has been amazing. Art + Technology Lab staff (OMG Joel Ferree!!!) and LACMA curators have been thoughtful, dedicated, and flexible about all elements of this process. They have worked across departments (media, facilities, curatorial, registrar, design, and probably others I didn't even hear about) to make a complicated project happen very very quickly against significant technical odds. And throughout all of this, they remained laser focused on realizing the best version of the work possible, knowing when to follow my lead, and when to suggest productive adaptations. Everyone has been deeply competent, and deeply reasonable. I've never had such a good experience before.

The labor associated with the FDIC show, and finishing the two QSP pieces proved to be more intense than I expected. As a result I was not able to make significant progress on the data visualization component of the QSP piece.

During Jan/Feb I also restarted work on the Chaplin remake. I was able to successfully get gigs placed on Fiverr, and produced 5 or so clips. I also conceived of a way to hopefully significantly reduce the transactional time/labor and potentially some Fiverr costs by batching clips together for each actor/producer. After identifying potential producers by doing one successful gig (either by posting a gig, or directly reaching out to them) I will send them a batch of 30-40 clips of a similar nature. I will divide all the clips into production categories:
1. One Man
2. One Woman
3. Man and Woman
4. Woman and Woman
5. Man and Man
6. Three people
7. A crowd
8. Non humans

So a woman who successfully produces one test clip of one woman will get 30-40 clips that only have one woman in them. The clips will be distributed throughout the film; the space between the clips is likely to be about 2 to 5 minutes. I'm unsure if this is too frequent.

I also began developing a potential socially engaged public project for the fall. At the request of the Lab I brainstormed a public project on the theme of "Labor in an era of AI." The Lab apparently has a funder interested in this topic, and we were invited to propose something. What I have proposed is a "Desert visioning session."

> Merging a desert vision quest to the site of a failed utopian commune with a silicon valley strategic vision session, I would convene a range of artists, activists, technologists and policy makers to engage in an unconference/hackathon style

discussion about what the future of labor looks like in a post-oil, climate changed, world with pervasive AI. If robotic mechanization has rendered *certain* bodies obsolete, what happens after AI renders *certain* minds obsolete? What does a utopian project look like in an era of AI? I seek to bring a broad group of thought leaders together: a domestic workers rights advocate, a Google AI engineer, an artist whose practice centers around the way labor is gendered, a scholar of Thomas Moore's *Utopia,* a Univeral Basic Income policy wonk, a sex work activist, etc. Over the course of a long weekend we will engage in spirited discussion, go on quests to view desert military training facilities, make dinner together, pack out *all* of our waste, and write/draw or otherwise reflect on the experience.

Joel submitted a short proposal, and we are awaiting a response. The next step would be to put together a feasibility study including a budget.

We didn't hold a public program in February, as we all wanted me to keep my focus on finishing the work. I will come back in May to talk in conversation with Lior Zalmanson.

Near term goals:
- Edit documentation video of *Rhythms*
- Batch up Chaplin film and send out a few batches of 30 clips for proof of concept.
- Begin next steps on QSP Data vis component: identify the questions I want to ask of the data, and what graphs/views/dashboards that corresponds to.
- Meditate on the data, and try to figure out of there are additional works that might come out of the project.

Middle-Term goals:

- Return to LA for May talk
  - If we have approval for next stage with Desert Visioning, make site visit to Llana del Rio.
  - Have enough work done on the data component that I can do some productive work with technology advisors
- Continue work on Chaplin film

Appendix: Updated Timeline

Mar/Apr
Chaplin & Data Vis focus

May/June
Chaplin & Data Vis focus
By end of June have a sense of whether I will be able to complete Chaplin by end of year

July/Aug
Chaplin film taking shape
Begin dealing with audio for film

September/October
Complete QSP for Denny Gallery show
Maybe Desert Visioning?
Maybe Chaplin film presented

November
Denny Gallery show

December
Denny Gallery show completes, and the audio piece finishes.

Installing *Rhythms* in the Pritzker elevators

Quantified Self Portrait (One Year Performance) installed at Ray's and Stark Bar

Appendix: Videos

My team and I recording my heartbeat on a bicycle set up on a stationary trainer. The audio from this exercise was used in *Rhythms*:

Documentation of the Pritzker elevator installation of *Rhythms*:

Quantified Self Portrait (One Year Performance) fully installed at Ray's and Stark Bar:
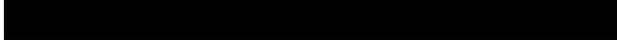
Michael Mandiberg

Budget for Art + Technology Award

When	July 18, 2017
For Whom	**Los Angeles County Museum of Art** 5905 Wilshire Blvd. Los Angeles, CA 90036
Pay to	███████████████ ████████ ███████ ██████████
What	LACMA Art + Technology Award Final 1/3 of total budget (final progress report) *See next page for itemized budget breakdown*
How Much	████████ USD - ██████ Artist fee - ███████ Materials and digital labor production costs; *see next page for itemized breakdown*) - ██████ Project administration costs (i.e. web hosting and studio costs; *see next page for itemized breakdown*)
Signed:	

<div align="center">

Michael Mandiberg
LACMA Art + Technology Grant
Final Project Budget

</div>

Total Project Budget: ███████

Note: Budget does not include travel expenses (September 2016, January 2017 and upcoming Fall 2017 trips)

Outside sources of funding for this project, including in-kind support:
Denny Gallery will provide documentation in-kind (value ██████)
All extra costs self-funded (value ██████)

Detailed project budget:

Artist fee
$30,000 (see endnote[i] below for details)

Materials / Digital Labor
Turker costs for film: ██████ (see endnote[ii] below for details)
Turker costs for audio recordings: ██████ ($1 per recording x 480 clips, plus waste)
Turker costs for photographs: ██████ ($1 per photo x photos, plus waste)
Subtotal: ██████

Project Administration and Assistance
Studio space: ██████ (██████/month, May-July, includes Internet & utilities)
Programming Research Assistant: ██████ ██████████████)
VPS Web hosting: ██████ for one year
Subtotal: ██████

Documentation and PR
Freelance Publicist: ██████
Photo and video documentation, web archiving: ██████
Subtotal: ██████
Subtotal less other sources: $0

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[i] This was the CUNY designated amount required to relieve me of my teaching for the year, and allow me to dedicate myself to realizing this work. This was a labor intensive project that required writing extensive code to automate processes, as well as a large amount of research to coordinate the implementation of *Quantified Self Portrait* at Stark Bar and in the Pritzker elevators. Additionally, I wrote extensive code to automate the upload process to Amazon Mechanical Turk. The MTurk API is fairly well documented, but the functional specifications of this use case are different enough from most that it required substantial labor on my part in order to write code to request and collect the clips. I am working on editing *Mechanical Tramp*, and

will have to edit the full 87 minute film. This cost is actually on par with contracting the work to others: contractor labor costs for programming, editing, and web design would be roughly ████████, plus the ████████████ opportunity cost of me having to project manage them.

[ii] As documented in the proposal, the core of this project involved contracting digital labor on Amazon Mechanical Turk to re-create the 557 clips in the 1936 Charlie Chaplin film *Modern Times* shot-by-shot. This project is impossible without these independent contractor fees. Based off of my experiments last fall, I determined that each clip cost about ██ per character per clip: a clip with one character cost ██, two characters cost ██, etc. The median clip has two characters, and thus cost ██ to recreate. There are 557 clips in the film. I also factored in roughly 10% of the clips requiring reshooting: 557 clip x ██ per clip x 1.1 reshooting factor = █████.

The current status of production on the Chaplin film is as follows:

Video production:

All clips have been sorted into clip type: single man, single woman, two men, man and woman, three people, four or more, crowd, no people, intertitle; note that this film so badly fails the Bechdel test that there aren't even any scenes that represent just two women!

I have been sending out individual clips on Fiverr by posting them as gigs for people to bid on, and by reaching out directly to Fiverr producers in the "Spokespersons & Testimonials" section. About 50% of the inquiries result in the completion of one clip.

Every producer who completes a test clip is offered a batch of 12 similar clips grouped by clip type. Some people specify that they are only able/interested in doing clips with one character; others are interested in doing more challenging clips. Most of those who are offered clips have completed the full batch; some decline some or all of the clips because of the difficulty of the clip, or we choose not to contract them because they ask a substantially too high a price for the clips.

Here is the current status

- 590 total clips (all multiclips are now separated)
- 73 inter titles
- 517 cinematic clips
- 230 of 590 clips have had their production description/instructions written
- 117 clips completed
- 10 test clips in production
- 3 batches of 12 clips, make 36 in production
- 72 selected as the clips to be kept in the original
- **163 completed or in production**
- **282 remaining to be produced**

I am about 37% of the way there. This is my major focus/push for July, and I expect to complete at least an additional 1/3 of the clips by the end of July, with the remainder produced in August. **By end of August, I expect to have image locked.**

Sound:

I have done a variety of research and discovered the original score for the film. I have them in .swf format, extracted from a website. I cannot seem to extract the vector files from the .swf. I can take screenshots, but the resolution isn't great. I

could potentially find a large monitor, change the orientation, and take screenshots that way.

https://www.dropbox.com/sh/849aiyhkra8csnv/AADcDAY6ERmBKlIqMOmo9Ev5a?dl=0

I have consulted with a composer (Alec Hall, current Guggenheim Fellow!) who said that one way to complete it would be via the score, but another way to do it would be to do spectral analysis to turn the sounds into complex MIDI data that can then be manipulated into sound. We have plans to do a test run with a small section.

My goal is to have a test of the spectral analysis by the end of July, with further testing in August. By end of August I hope to have a decision and plan for production, so I can complete sound in September.

I hope to have a finished work by the end of September.

May 22 email, in advance of a meeting with DAQRI in LA

Hi Dana, Jono, and Stefanie,

In advance of our Tuesday meeting I wanted to send over some of the data work I have accomplished. You can find three graphs linked from http://www.qsp.mandiberg.com/

Caveats: the data is incomplete, and is currently in units of seconds, which obviously is not particularly useful, but is changeable. I am actively working on completing the ingestion of the full coded data set. I hope to have updated/complete data by our Tuesday AM meeting.

Data is coded by project type (Print Wikipedia vs Art+Feminism vs College of Staten Island, etc) and work type (Admin, Making, Teaching, Meeting, Email, Install, etc)

Things I know I want to know:

- How much total time, and weekly numbers (or just an average?). e.g. "On average, I worked 65.5 hours per week, and my assistants worked an additional 24.3 hours"
- How much total time per worktype and how much total time per project?
- Flow of projects- which ones come in when and leave when? I think it is going to be important to use color coding to link project types and work types. For example Print Wikipedia, FDIC Insured and Studio/Art are all one family of project type (the art making family) while CSI and GC are another teaching family. Color families and stacking order could accomplish much of this, right?
- How much of my time I am in front of a computer vs working offline, vs sleeping.
- How much my Assistants work. Can I tell overlap? This may be beyond the scope of what is feasible.

Things I don't know if it is feasible to do and/or if are really the crux of the project

- The kind of "insights" that Gyroscope's dashboard aims for (moments when you are doing other activities)
- making my own dashboard (vs using D3). I just don't know if I have the time/budget/energy, nor if that is the point.

In our fall communication Jono called out these Decision points

Polish vs. Medium-as-message

When I first saw your email recordings of your daily activities in Google Calendar, I admittedly had a bit of a knee-jerk reaction and wanted to organize everything into something a bit more legible, but on second though, there's actually something lost when you take it out of the original medium you're using to record it. You'll have to choose between using the original medium as a commentary on your day-to-day and displaying the information in a bit more of a objective albeit potentially sterile designed way (a-la-Feltron).

Layered Interactivity vs FUI Confusion

Unlike physical and print infographics, you're able to control the amount of information with varying levels of detail (See: progressive disclosure). This presents you with the option to either overwhelm visitors with the sheer amount of data that you've gathered about yourself (and then allow them to pick through a their own pace) or present them with a curated, simplified, insight-driven display that allows them to drill down without getting overwhelmed.

I think that I am interested in both polish and medium as message. Which is related to Layered/progressive interactivity vs FUI confusion. I want the information to be legible, but overwhelming. I want to keep legible the scope and scale of the work itself, and the work of counting the work. Per above, I don't think I want to create my own FUI. But I want it to be a bit overwhelming.

In our fall communication Stef brought up Factor Analysis, and I have to admit I didn't entirely understand what it was, in any detail. I'm not super strong on statistics, and don't have any hands on ML experience. If you think that this remains an important avenue, maybe I can try again.

Visualisations:

So far we have following charts to visualize the collected data: Stream graph, Stacked bar graph and total pie chart here: http://www.qsp.mandiberg.com/

I am imagining graphs that represent the data sorted by work type and by project type. Probably for the whole year, but would it also be valuable to have it segmented by month?

I like the idea of being able to select a worktype and click through to a breakdown of that work type by project type. Don't know if that is feasible in D3

One known question is when to use the Streamview, stacked chart, or pie chart

Additional data/graphs/questions

How do I deal with sleep and other fitbit generated data.

How do I deal with "the full day" eg 24 hours when I didn't closely track personal work, and i'm incorporating assistants

We are having problems dealing with overlap between the different data sources. I don't know how to resolve the data problems. This is possibly a point of 'insight' but is definitely a potential for inaccuracy.

I have qualitative daily reflections that include my assessment of what I worked on most each day. Might be interesting as a kind of Calendar view https://bl.ocks.org/mbostock/4063318 or is this just extras???

Other possible graphs:

heat map by hour

http://bl.ocks.org/oyyd/859fafc8122977a3afd6

Though I like the gyroscope one the best

OK, long email. Sorry.

See you Tuesday.

Michael