Re-Staging the Debates: Experiments in Visualizing Qualitative Data on Human Interactions in Performance

On "Her Opponent"

Presented at the 2017 NYU Steinhardt Forum on Ethnodrama

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Performed by Rachel Whorton, Daryl Embry, and Andy Wagner

https://www.nytimes.com/2017/01/30/theater/he-said-she-said-gender-bending-the-presidential-debates.html

https://vimeo.com/237562820/9b0155698d

Today I'll be discussing the rationale and the methodology for a project in development and soon to be realized: recreating exactly - shot for shot, word for word, breath for breath, gesture for gesture - the 2016 televised presidential debates between Donald Trump and Hillary Clinton, with one significant variation. Trump will be a woman, and Clinton will be a man.

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Shortly after the election in November 2016, Maria Guadalupe, associate professor of economics at INSEAD, reached out to Joe Salvatore, an ethnodramatist and clinical associate professor at NYU Steinhardt, with the idea to reenact the Trump-Clinton debates with an important variation: Trump would be played by a woman, and Clinton would be cast as a man.

Professor Guadalupe studies gender bias and asymmetrical power in the context of business interactions, and during the election, she had been thinking about how she could use the 2016 US presidential campaign to explore with her students the many forms of implicit bias around gender inequality in the political and business worlds. Guadalupe had experienced ethnodramatic theater the previous year, attending a project of Salvatore's in

New York, and the form had stayed with her. Using theater as a kind of object lesson in exposing these biases seemed a unique possibility. She asked a central question: would we be perceiving the campaign differently if the candidates' genders were reversed?

Connecting this question to Salvatore's practice in ethnodrama, if actors versed in the research-based methodology of ethnodrama could 'inhabit' the words and manners of the candidates, perhaps it would allow an audience to see more clearly how the gender identity of the speaker might be affecting both the participants in those exchanges and observers of it - the audience themselves.

As a filmmaker, media artist, teacher, and arts researcher, I study the ways that artists can rigorously engage in complex problem solving outside of the often insular world of the arts. Emerging from documentary, journalism, commercial and policy-centered media, and the fine art world - and as a teacher of young artists of great capacity but sometimes limited aspiration (being famous is not, in my view, a worthwhile aspiration) - I had been frustrated by artists' relegation in society to the role of *communicator*.

Whether it was film, painting, photography, sculpture, or theater, I found that our usefulness to outside eyes was limited to the images we make or the entertainment - no matter how informed and thought provoking - we provide. My own students at RISD grew up immersed in this sort of cultural thinking, that they may be fortunate to find themselves in a position to *inspire* others to do better, but beyond that how art could function in steering human endeavor was a mystery. It was a multi-year project to show them that their work goes beyond making artworks themselves; what artists did was produce new knowledge. And this new knowledge could be captured and applied to address the most intractable problems humans may face.

My work has connected me to the U.S. Agency for International Development, the UN, immigration and education advocacy organizations, and many more "real world" outlets. In every case, the artist's foot in the door of these organizations is almost always as a communicator: make a prettier website, shoot a promotional video, take some photos for the company brochure, do some illustrations or logo designs. But the host institutions had no framework for understanding how these artist's positions could be the source of actionable information or usable research. Working in these spaces, I began to understand that this was because they had been trained to understand information only if it could be expressed as 'data'. The Information Age had left these problem solvers with such a narrow view of what information was, that if it was not in some way quantifiable through computer analysis, then it wasn't trustworthy information. Data that wasn't quantitative wasn't therefore rigorous.

The idea of qualitative data - non-numerical data - is not a new one. A new generation of economists, psychologists, social scientists, and others have been exploring these non-numerical forms of information for several years. Largely, these studies are centered around human behavior, which seems, no matter how many numerical values we assign to its various facets, to always slip out from beneath our full understanding or capacity to anticipate. (It's worth noting that, parallel to this, computer scientists in pursuit of artificial intelligence have also been prying at qualitative data, in the belief that, if fragmented at a sufficiently fine grain, this information may yet be quantifiable.)

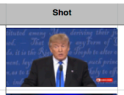
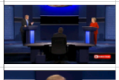
It's notable that these disciplines are all often regrettably described as 'soft' sciences. Here's a good piece of qualitative data for us to begin with - metaphor that color our perception as they emerge through language. What is, in our subjective opinion, *better:* 'hard' information, or 'soft' information? Which of these qualities do we value more, in our society, hard things or soft things, and in what contexts? If I know the listeners, there's a giggle brewing deep inside you - and that's because you're human beings and we all know what I'm talking about. There are pills to make things harder, but none that I know of to make things softer. There are embedded metaphors in our language which are manifestations of our deepest biases and which shape our perception. (And yes, almost always these metaphors, at their root origins, come from how we map our body into the world. For example, good things are at 'the top' and when things are bad they hit rock 'bottom' - possibly because we value our head over our feet.*) 'Hard' science is rational, trustworthy, structured - it is male. Soft science is ambiguous, shifting, and - yes - generally perceived as less reliable. Softness is also feminine, and despite our rhetoric at the conscious level, this isn't being praiseworthy. This deeply ingrained metaphor manifests in the real world - men significantly outnumber women in those disciplines understood to be 'hard science,' - men make up more than 70% of all employees in 'hard' science and engineering. Meanwhile the 'soft' sciences are pursued by a workforce comprised of 60% women. (NSF, NCSES Women, Minorities, and Persons with Disabilities in Science and Engineering 2015)

When Joe Salvatore approached me about recreating the televised debate with this gender re-staging, it was through this lens that I viewed it. What Maria Guadalupe was seeing in the interaction and in the media production were, to me, forms of perceptual, or qualitative, data: gender identity and its connection to behavior and perception, as well as the mechanisms of the electronic, televised mediation of this interaction. Because in my work I have been aiming to articulate and codify some other types of qualitative data, namely Narrative, or Perceived Causality, I was excited by the idea of capturing the knowledge such

an artwork could generate, and re-presenting it for non-artists to learn from, even after the proposed theatrical production was complete. In fact, in this methodology, the art product - the performance or the picture or the movie - is just the *beginning* of the knowledge-production process.

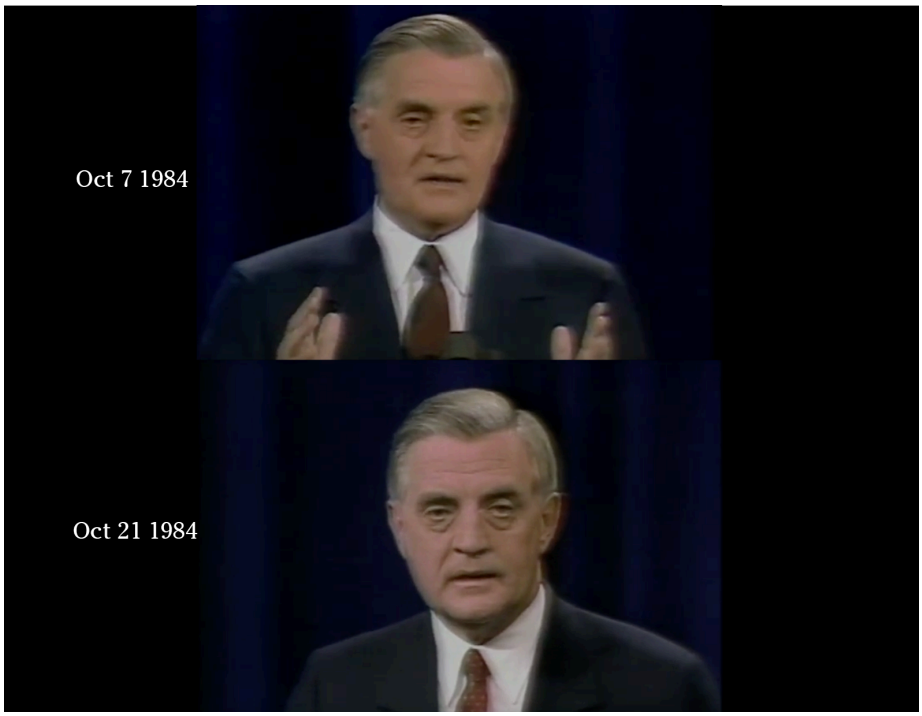
We agreed to use a theatrical production of the gender-swapped debate as a stepping-off point for a follow up version which would be a shot-by-shot reproduction of the original televised debates, in which not only the candidates' words and behaviors were 'inhabited' in the ethnodramatic mode, but that the lighting, lens focal length, shot selection, and everything else about the perceived televised image was recreated, so that the gender inversion can stand out as the experiment's variable, and we can more clearly capture and study the knowledge of bias that is created in viewing the reversed debate.

Shot Log Debate 01

	Timecode	Shot	Duration	Notes	Note Visual	Script Cue
1	00:00:00:00 - 00:00:01:06		0:01	Trump Medium Front Locked		**MODERATOR:** Back to the question, though. How do you bring back —
2	00:00:01:07 - 00:00:04:04		0:03	Audience POV Wide Locked		**(cont'd..)** specifically bring back jobs,
3	00:00:04:05 - 00:00:07:24		0:03	Moderator Medium Front Locked		**(cont'd..)** American manufacturers? How do you make them bring the jobs back? **TRUMP:** Well, the first thing you do is
4	00:00:07:25 - 00:00:18:16		0:11	Trump Medium Front Locked		**(cont'd..)** don't let the jobs leave. The companies are leaving. I could name, I mean, there are thousands of them. They're leaving, and they're leaving in bigger numbers than ever. And what you do is you say, fine, you want to go to
5	00:00:18:17 - 00:00:22:11		0:04	Audience POV Wide Locked		**(cont'd..)** Mexico or some other country, good luck. We wish you a lot of luck. But if you think you're going to make your air conditioners or your cars or your cookies or whatever you make and bring them into our country without a tax, you're wrong. And once you say you're going to have to tax them coming in, and our politicians never do this, because they have special interests and the special interests want those
6	00:00:22:12 - 00:00:39:14		0:17	Trump Medium Front Locked		**(cont'd..)** you think you're going to make your air conditioners or your cars or your cookies or whatever you make and bring them into our country without a tax, you're wrong. And once you say you're going to have to tax them coming in, and our politicians never do this, because they have special interests and the special interests want those
7	00:00:39:15 - 00:00:42:01		0:03	Audience POV Wide Locked		**(cont'd..)** companies to leave, because in many cases, they own the companies.
8	00:00:42:02 - 00:00:51:22		0:09	Trump Right Medium Locked		**(cont'd..)** So what I'm saying is, we can stop them from leaving. We have to stop them from leaving. And that's a big, big factor. **MODERATOR:** Let me let Secretary Clinton get in here.
9	00:00:51:23 - 00:00:53:02		0:02	Moderator Medium Front Locked		**CLINTON:** Well, let's stop
10	00:00:53:03 - 00:01:20:17		0:27	Clinton Medium Front Locked 00:01:13:27 - GFX appear		**(cont'd..)** for a second and remember where we were eight years ago. We had the worst financial crisis, the Great Recession, the worst since the 1930s. That was in large part because of tax policies that slashed taxes on the wealthy, failed to invest in the middle class, took their eyes off of Wall Street, and created a perfect storm. In fact, Donald was one of the people who rooted
11	00:01:20:18 - 00:01:22:05		0:02	OTS Trump -> Clinton Med-wide Locked		**(cont'd..)** for the housing crisis.
12	00:01:22:06 - 00:01:29:20		0:07	Clinton POV Medium Locked		**(cont'd..)** He said, back in 2006, "Gee, I hope it does collapse, because then I can go in and buy some and make some money."

When we watch a mediated, televised image, we are of course having our perceptions shaped by scores of hidden technical considerations. To take just one of many known examples of these media-induced perceptions, in 1984 after Ronald Reagan was perceived to have lost the first of his debates with Walter Mondale, and was weathering a relentless campaign about his age, Reagan's advance team had the lighting adjusted to a higher angle for the second debate just 2 weeks later. The Mondale campaign assented to it, having chosen a different battle (about the angle of the podiums). Under the higher angle light,

Mondale looked fatigued and appeared to have aged at least 10 years, visually undercutting his argument about Reagan's seniority.



Decisions about shot framing, lighting, lens length, backdrop color, and methods of audio transmission affect our perceptions, at least as much as the candidates themselves. We wanted to accurately recreate as many of these components as possible so that we could study the effects of them singularly or in combination.

We have therefore set out to produce a media object around the ethnodramatic performance that could contain numerous layers of qualitative data, and that could then also re-present this information in a rich set of annotations that would allow someone in Maria Guadalupe's position to slow down the televised debate and take apart all the pieces of data which contribute to our conscious and subconscious perception of the event, and make them cognitive. The user would also be able to input their own perceptual data and contribute to a tabulated, searchable, wiki-like database of response and perception, or they could create experiment variables of their own and replay the exchanges to explore other hidden perceptual biases or experiences.

The first step in this process was to have the actors, directed by Joe Salvatore, develop the gender-reversed ethnodramatic performance itself. Our technical considerations, however, would inform this process in a way that the performers hadn't previously experienced. Rachel Whorton and Daryl Embry assumed the roles of Trump and Clinton, and began to memorize the language from transcripts, which Salvatore had formatted to emphasize the

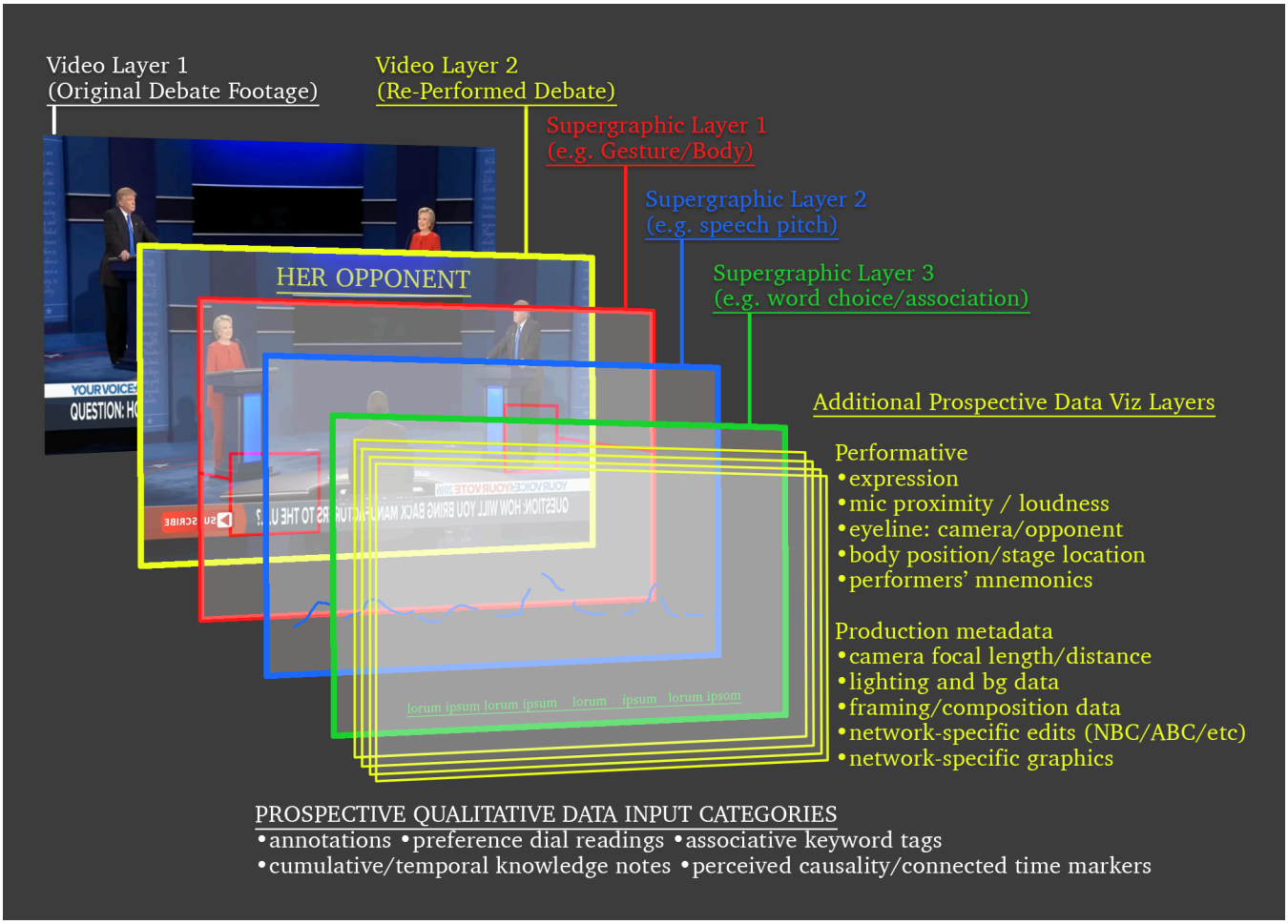
speech patterns, particular pauses, within which the words appeared.

We and the performance team worked in parallel as we both analyzed the debate video, such that we would eventually end up with two different datasets, generated through two different artists' literacies - that of the performer and that of the filmmaker or sequential-visual artist. The actors used their disciplinary methodologies to memorize the debates, beginning with speech, pauses, and vocalizations; then intonation; then body movement and gesture; and finally through an 'emotional' layer, conceived of metaphors and mnemonics that performers use to remember complex sequences of behaviors.

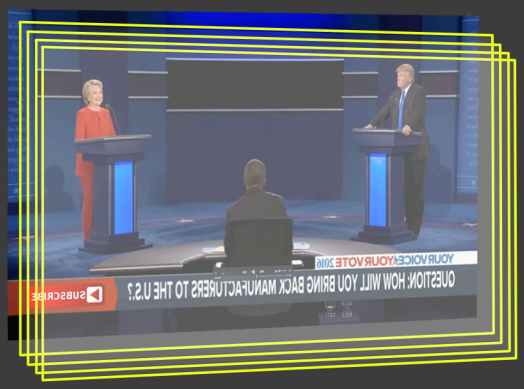
We - working with the media side - are also viewing the debates as a layered perceptual experience, using a methodology developed to make *Narrative* itself a form of qualitative data utilizable in research contexts. For the performance and then subsequently the video re-production are visualizing these layers in isolation, in order to be able to recombine them in the final work. We are also considering some qualitative layers to be the 'sum' of a

combination of others, such as thematic or metaphorical considerations, or causal relationships between different moments in the sequence.

During the analysis process enormous learning takes place - both in the performers' methods of research and our own - and it was important from the outset to capture this learning as we went, so as to re-present it as annotations and embedded knowledge in the eventual teaching tool. And importantly, this work will not result in a static piece of watchable media - an online video for example - but an interactive multimedia object, where each layer can be switched on and off, highlighted, annotated, and illustrative. It will be a comparator tool, where we can evaluate our experience of the debate by flipping different perceptual lenses on and off, and present for study sets of qualitative, artist-produced data that would otherwise be inaccessible to non-artists.



As we began this process, the perceptual layers broke down into two interrelated categories: those layers which emerge from the candidates - and thus are a part of the actors performance - and those layers of perception brought about by the technical processes of television. As the actors worked through the layers of their performance, however, we simultaneously aimed to break apart and capture our own learning about these categories of data.



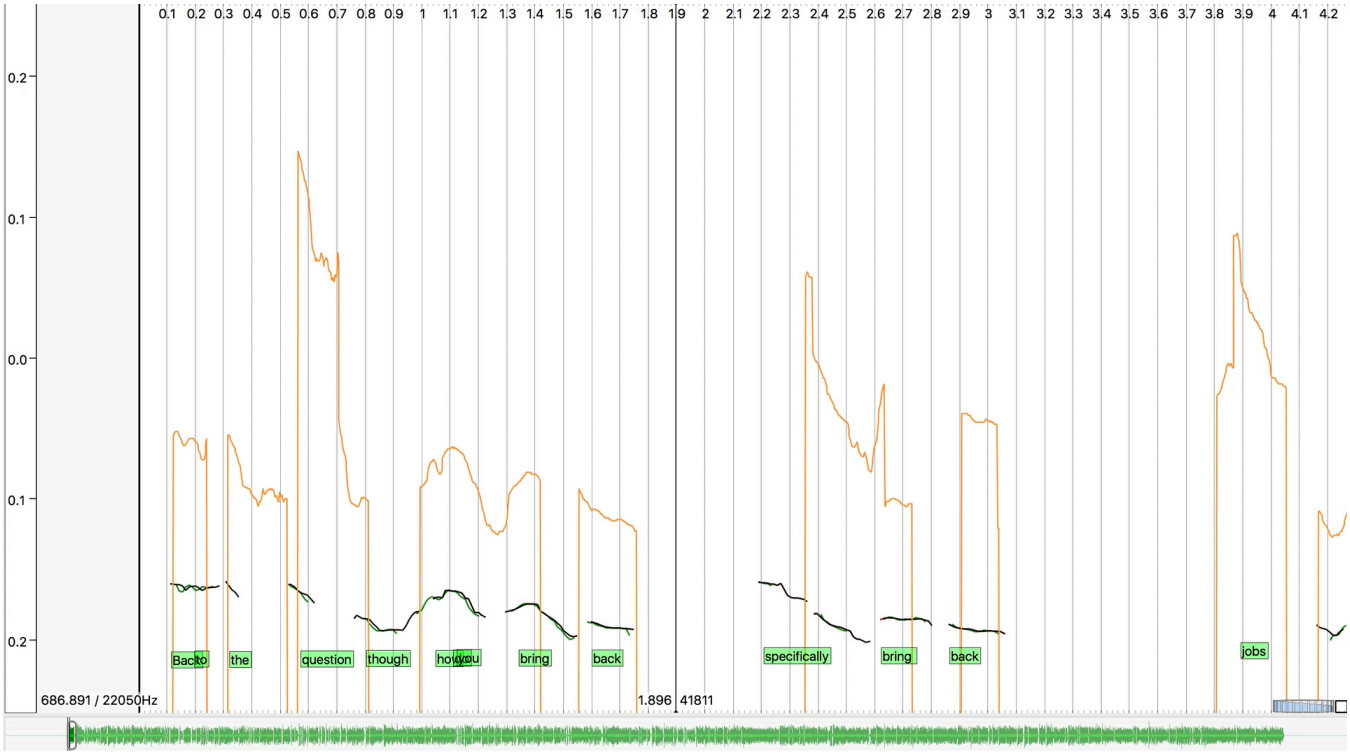
Prospective Data Layers

Performative
- words, pauses, vocalization
- gestures (hand shape, movement, iterations)
- pitch scale of speech
- facial expression
- mic proximity / loudness
- eyeline: camera/opponent
- body position/stage location
- performers' mnemonics - feeling in context

Production metadata
- camera focal length/distance
- lighting and background data
- framing/composition data
- network-specific edits (NBC/ABC/CBS/FOX/CNN)
- network-specific graphics (NBC/ABC/CBS/FOX/CNN)

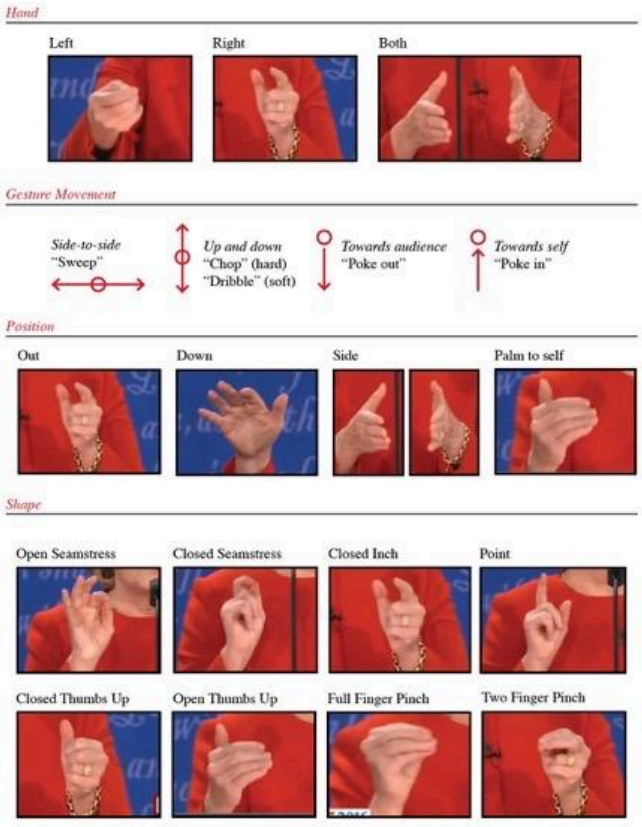
For example, the actors began by memorizing the words spoken, complete with the pauses, stuttering, and other vocal utterances - for example, sniffing. Layered over this, I was interested in the rising and falling pitch cadence of the speech. As a documentary filmmaker, I listen to these up- and down-glides during the course of interviews to get an underlying sense of an interlocutor's relationship to their ideas as spoken. For example, we often close our sentences with an up-glide when we are seeking verification, are in doubt, are posing something as a question, or are trying not seem too forceful in a conversation.

We worked in parallel with the actors on this layer of information, with Rachel and Daryl, and then Andy Wagner joining in as the moderator, marking up their transcripts with a highly personal (but trained), informal notation for rising-and-falling pitch. Meanwhile we ran audio files of the original debates through analysis software to generate pitch-curves, showing clearly where the candidate's words rose and fell.



This is where our two parallel research methodologies are valuable. The actors' perceptual capacities are measured against the analysis capacities of software. Sometimes human analysts and computers disagree; but always they can inform each other. These points of departure between methods of analysis are sometimes the most informative. The very fact that this applied-art form of research *relies* on human interpretation to function is crucially important. We will come to these highly subjective forms of interpretation - metaphor, perception, perceived causation - shortly. But they are essential layers of information in these moving images. It may well be, however, that it is these kinds of complementary modes of knowing among artists of different disciplines that makes collaborative work rich and complex.

A similar parallel investigation occurred with hand gestures. After the actors had memorized the vocal portion and its cadences, they began to layer in the physicality of the debates. They watched the video and notated their transcripts for the location and type of hand gestures. They each used a very personal type of notation that helped them to memorize the gestures and associations with portions of the transcript. We did the same thing, but without the need to memorize, we attempted to create a more 'objective' data layer, breaking out each hand gesture in the video and creating a simple notation system with three basic interlocking components: hand shape, movement, and number of iterations. We invented some of the notation from scratch, and borrowed some of the language from orchestral conductor's gestures



In both cases - voice pitch and hand gesture - there is of course thorough academic research and analysis available. The multimedia project we will create will ideally contain annotations that can refer to this specialists' knowledge. When viewing the debate video with an interest in nonverbal communication, the user will be able to activate a layer of annotation that will highlight the hand gestures, for example, and offer heads-up notes on the academic knowledge extant for that category of information. As specialists in different modes of perception, however, artists of different disciplines are essential interpreters of these layers of data, and between the performers and the filmmakers, we have already two rich sets of perceptual information that are potentially more applicable to understanding the perceptions of a general public than some nonverbal communications specialist's may be.

It's important to note the incredibly short timeframe within which all this work took place. The November 8 election created a sense of urgency and immediacy around understanding these skewed perceptions and prejudices that so startled so many people. Within few weeks of the election the groundwork for the project was being laid, and by December we were already targeting a performance date for Inauguration Day, January 21. (We would settle on the following week, eventually, due to a whole host of logistical challenges.)

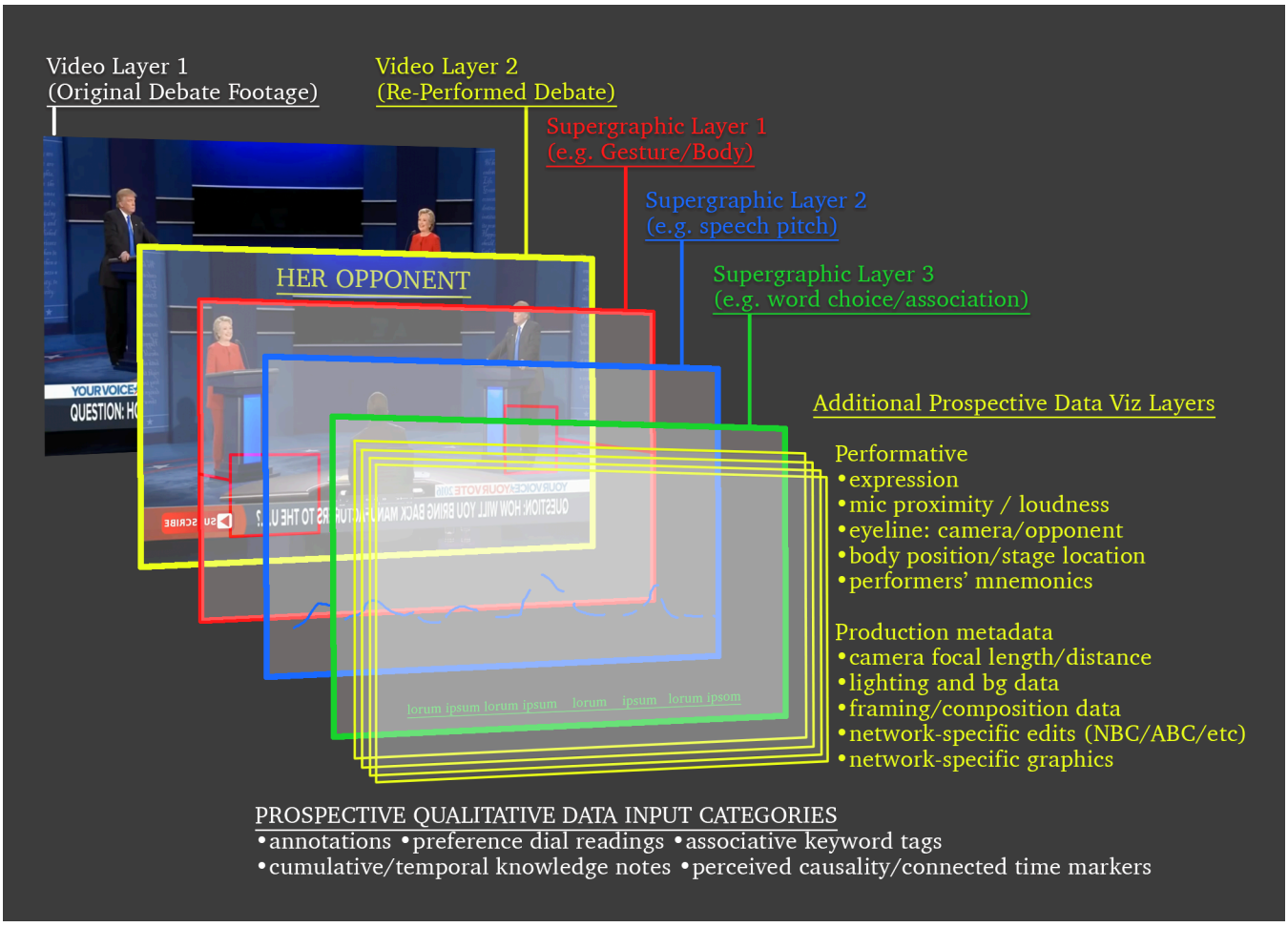
By the time the casting was set and the approach was being developed, this left just about a month to pull the complete staging together - find a theater, prep the technical aspects, establish ticketing and publicity - while also creating the performances through ceaseless rehearsal. As much as we might have hoped to do the video analysis and then provide it to the actors to build from, instead for the most part we labored on two different analyses simultaneously and then were able to come together very late in the rehearsals and learn from the others' disciplinary approach. In this way our image analysis helped, perhaps, the actors think about the hand gestures and speech patterns in a distinct way, just as the actors' discoveries in their analyses helped us recognize important data layers in things like the speech loudness (via the candidates' proximity to the microphone - a technical exploit used to great effect by Trump, but overlooked by Clinton) and the segmenting of the exchanges into metaphorical sections. Going forward, we are excited to combine these distinct research approaches, and indeed with each new discipline that joins the work, we discover new, essential, and fundamentally qualitative ways of data-gathering from this material. In this case, however, by the last week in January Rachel, Daryl, and Andy were on stage, giving the theatergoing public a startling proof-of-concept.

Our role as nonspecialist interpreters of these data layers is important here, precisely because the debate is a complex perceptual experience that contains numerous avenues for potential specialized analysis. Psychologists, sociologists, economists, political scientists, and on and on will all find rich veins of inquiry to mine here. The artist is always a synthesizer of diverse ideas; film and video in particular is notable for the breadth of synthesis involved. Artists in every discipline possess unique literacies that give them the capacity to decode and encode specific forms of quote-unquote subjective knowledge. A unique literacy of filmmakers, as I've come to understand it, is in the perception of causation. Filmmakers' literacy in what makes people *believe one thing has caused another* is what makes Narrative fundamentally viable out of the disjointed, complex construct of a film production.

In one example, Rachel Whorton, playing the Donald Trump character 'Brenda King' (a syllabalic and word-associative match chosen to maintain the speech cadence in performance without creating the perceptual distraction of calling a woman "Donald"), remarked that in her preparation she broke the debate into subjective thematic sections. She identified a section in which Trump repeatedly and snipingly interrupts Clinton with the same phrase (Figure 5 - video sample) as the 'Stop Hitting Yourself" moment. This is a useful mnemonic for an actor memorizing a long sequence of words and actions, but it is also a telling interpretation of the segment as a clear form of bullying - only older siblings

and schoolyard bullies engage this way. Therefore the media application we create must create a space for the inclusion of this type of interpretive annotation, and have it be editable so that users can enter their own interpretation and see those added by previous users. It stands to be a combination of Soundcloud-type temporal footnoting with Wikipedia-style group editing and history. (Figure 6 - Soundcloud/Wikipedia) Rachel's analysis of these thematic segments is a terrific demonstration of an actor's unique literacy in *interpersonal dynamics* - a reading and re-presenting of a full matrix of context-dependent behaviors that goes far beyond the memorization of lines and the emulation of gestures.

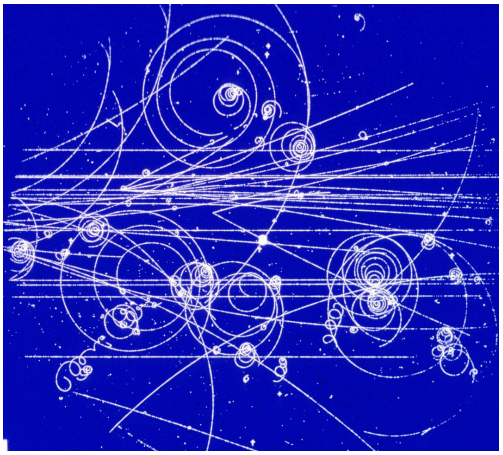
So we are studying perception, and laying out our findings to be added to by specialists in a multitude of areas. When the project is complete, users will be able to view the re-performed gender-reversed debate and then click a box to reveal the original beneath it.



Comparison between these two versions will reveal perceptual experiences in the viewer that may well point to inherent and unconscious biases within.

Additional layers of highlighted and richly annotated data, such as the pitch scale, hand gestures, and word choice, can help users focus their awareness on different aspects of these biases. We have seen already, in the stage performance of the debate, how the words and

arguments of the candidates seem to have mattered far less to audience sympathies than their nonverbal communications. According to audience response, Donald Trump's body positioning, vocal intonation, and manner of forceful gesticulation - as embodied by Rachel Whorton - was revealed to be far more persuasive and memorable than Hillary Clinton's restrained and controlled manner. Much of the audience's previous stance on Clinton and Trump was revealed to be based on unconscious biases. And this cuts both ways - in our captured responses, it was stated that "Jonathan Gordon" (Hillary Clinton) when seen as a man was deemed 'effeminate' - and that this perceived effeminacy was implicitly bad for his prospects as a politician or a leader. This is absolutely gender bias, but not where many pundits or observers consciously expected to find it. Conversely, 'Brenda King' stalks the stage and "occupies a lot of space," and it was observed at once that "no woman would get anywhere in American public life behaving this way," while also that it was an effective tactic to hold attention and project a sort of power - a perceptual conflict that seems to fundamentally preclude a woman - as the American public expects a woman to behave - from holding the highest office.



Like undiscovered subatomic particles spinning out of a particle collider , this is the new knowledge that flies off the artwork itself, enacted by the simple inversion of gender positions. To carry this metaphor further - in the live performance, we aimed to begin to capture these flecks of new knowledge in the form of audience feedback and methodological reflection amongst the participating artists and producers. In the video reproduction now under way, and the subsequent construction of a multimedia teaching tool that can visualize all these many layers of perception-forming data, we aim to build the particle collider itself. Users can create their own control scenarios and plug them into the application and see what new hidden understandings might be generated.

Couldn't we just add these layers of annotative metadata to the original debate footage? What value is added through the labor of replicating the video and inserting the gender variable? There are two primary answers to this, and they both have to do with valuing the artistic process above the artistic product. The *act of making art* is a learning experience without equal, and much of the knowledge we have acquired about the debate exchange was

only made possible by the months-long process of emulating every gesture, analyzing every word, and matching every televised image.

As an example, when we and the actors were studying the original video in parallel to draw out the useful, emulatable layers of nonverbal communicative data, we (the video production team) were looking at the audio through the expected layers of pitch and loudness. The pitch analysis, already viewed, revealed useful information; but the loudness or the speaking levels was less revelatory, partly because the television broadcast contained limiters which regulated the amplitude of the audio signal. Additionally, we assumed, the candidates made an effort not to go yelling at the top of their lungs on national television.

However Rachel Whorton, preparing for her role as Donald Trump/Brenda King, recognized that Trump did not raise his voice when he wanted to speak over his opponent; instead he brought his mouth closer to the microphone and actually pitched it down. The effect was a high-amplitude, low-frequency signal that overwhelmed Clinton's even oratorical level. Many of Trump's key memorable lines were delivered this way - 'No puppet,' 'Nasty woman,' etc. This makes sense, of course, of someone who has spent decades in television production - he knows well how the technical mechanisms work and he exploits it to be heard without being perceived to shout or be forced to pitch his voice up, which could have been subconsciously perceived as weaker. Would these moments have been possible if there had been a nonpartisan boom operator maintaining equal microphone spacing for all participants? This may be a logistical impossibility or a reasonable question - but it is likely one that technical producers have had to consider already.

The television productions of presidential debates are created by a network production team which serves a pool feed of the video to all outlets that will be broadcasting it. Each individual outlet is then able to contextualize and repackage the image with its own supergraphics and text. And while there is a live pool director who makes shot decisions for the edited pool feed, there are also, since 1996, isolated camera feeds provided to paying broadcast outlets so that they can direct the shot selection of their respective network's coverage. This means that while *most* outlets will be showing the same pool-selected shots, larger networks with sufficient resources can make their own decisions about which camera view(s) to be using. This first became an issue when Bill Clinton benefited from some networks' decision to override the pool edit and use instead a predominantly split-screen format, which caught his opponent Senator Bob Dole off guard - Dole's apparent disinterest during his non-speaking moments became a subject of ridicule on late-night comedies.

Our initial shot list is of the pool-provided edit.

Shot Log Debate 01

	Timecode	Shot	Duration	Notes	Note Visual		Script Cue
1	00:00:00:00 - 00:00:01:06		0:01	Trump Medium Front Locked			**MODERATOR:** Back to the question, though. How do you bring back —
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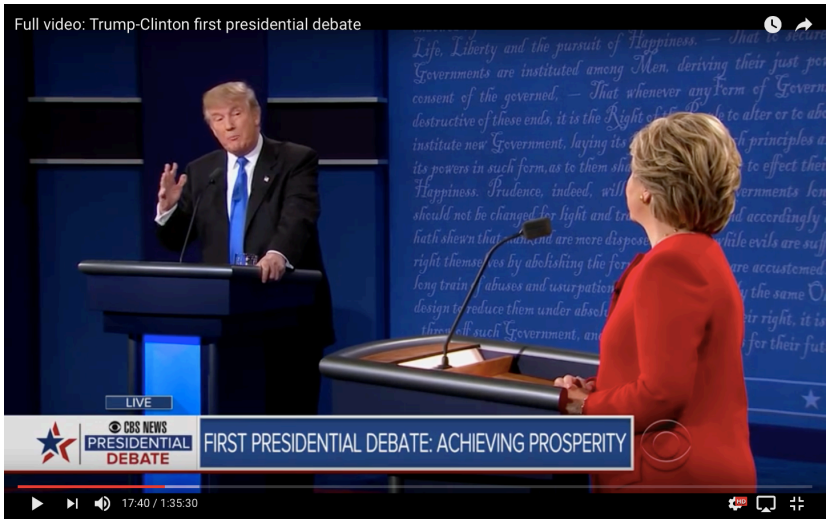
3	00:00:04:05 - 00:00:07:24		0:03	Moderator Medium Front Locked			**(cont'd.)** American manufacturers? How do you make them bring the jobs back? **TRUMP:** Well, the first thing you do is
4	00:00:07:25 - 00:00:18:16		0:11	Trump Medium Front Locked			**(cont'd.)** don't let the jobs leave. The companies are leaving. I could name, I mean, there are thousands of them. They're leaving, and they're leaving in bigger numbers than ever. And what you do is you say, fine, you want to go to
5	00:00:18:17 - 00:00:22:11		0:04	Audience POV Wide Locked			**(cont'd.)** Mexico or some other country, good luck. We wish you a lot of luck. But if you think you're going to make your air conditioners or your cars or your cookies or whatever you make and bring them into our country without a tax, you're wrong. And once you say you're going to have to tax them coming in, and our politicians never do this, because they have special interests and the special interests want those
6	00:00:22:12 - 00:00:39:14		0:17	Trump Medium Front Locked			**(cont'd.)** you think you're going to make your air conditioners or your cars or your cookies or whatever you make and bring them into our country without a tax, you're wrong. And once you say you're going to have to tax them coming in, and our politicians never do this, because they have special interests and the special interests want those
7	00:00:39:15 - 00:00:42:01		0:03	Audience POV Wide Locked			**(cont'd.)** companies to leave, because in many cases, they own the companies.
8	00:00:42:02 - 00:00:51:22		0:09	Trump Right Medium Locked			**(cont'd.)** So what I'm saying is, we can stop them from leaving. We have to stop them from leaving. And that's a big, big factor. **MODERATOR:** Let me let Secretary Clinton get in here.
9	00:00:51:23 - 00:00:53:02		0:02	Moderator Medium Front Locked			**CLINTON:** Well, let's stop
10	00:00:53:03 - 00:01:20:17		0:27	Clinton Medium Front Locked 00:01:13:27 - GFX appear			**(cont'd.)** for a second and remember where we were eight years ago. We had the worst financial crisis, the Great Recession, the worst since the 1930s. That was in large part because of tax policies that slashed taxes on the wealthy, failed to invest in the middle class, took their eyes off of Wall Street, and created a perfect storm. In fact, Donald was one of the people who rooted
11	00:01:20:18 - 00:01:22:05		0:02	OTS Trump -> Clinton Med wide Locked			**(cont'd.)** for the housing crisis.
12	00:01:22:06 - 00:01:29:20		0:07	Clinton POV Medium Locked			**(cont'd.)** He said, back in 2006, "Gee, I hope it does collapse, because then I can go in and buy some and make some money."
13	00:01:29:21 - 00:01:32:11		0:03	Clinton Medium Front Locked			**(cont'd.)** Well, it did collapse. **TRUMP:** That's called business, by the way.
14	00:01:32:12 - 00:01:34:22		0:02	Clinton POV -> Trump Medium Locked			**CLINTON:** Nine million people — nine million people
15	00:01:34:23 - 00:02:10:16		0:44	Clinton Medium Front Locked			**(cont'd.)** lost their jobs. Five million people lost their homes. And $13 trillion in family wealth was wiped out. Now, we have come back from that abyss. And it has not been easy. So we're now on the precipice of having a potentially much better economy, but the last thing we need to do is to go back to the policies that failed us in the first place. Independent experts have looked at what I've proposed and looked at what Donald's proposed, and basically they've said this, that if his tax plan, which would
16	00:02:10:17 - 00:02:14:29		0:04	Audience POV Wide Locked			**(cont'd.)** blow up the debt by over $5 trillion and would
17	00:02:14:30 - 00:02:54:13		0:40	Clinton Medium Front Locked			**(cont'd.)** in some instances disadvantage middle-class families compared to the wealthy, were to go into effect, we would lose 3.5 million jobs and maybe have another recession. They've looked at my plans and they've said, OK, if we can do this, and I intend to get it done, we will have 10 million more new jobs, because we will be making investments where we can grow the economy. Take clean energy. Some country is going to be the clean- energy superpower of the 21st century. Donald thinks that climate change is a hoax perpetrated by the Chinese. I think it's real. **TRUMP:** I did not. I did not. I do not say that. **CLINTON:** I think science is

Our intention with this project, however, will be to replicate all the camera angles used, thereby recreating the isolation-shot feeds, and with it the ability to make an exact copy of *any* of the networks' re-presentation of the event. It will be possible to do a moment-by-moment comparison of the FOX, CNN, NBC, ABC, and CBS feeds, as well as the pool feed itself.

The first Trump-Clinton debate, in which the candidates are behind lecterns, relies on single medium shots of each candidate, and by the use of a static over-the-shoulder two-shot which works to keep both speaker and nonspeaker in frame, but carries its own subconscious perceptual risk - it causes one candidate to appear larger than the other, due to the foreshortening in a single-point perspective optical image. Scale does matter in our subconscious evaluation of an image - without the frame, we definitely respond very differently to video on a smartphone screen versus the same images on an IMAX screen; and within the frame, cinematographers work hard to compose their figures into narratively-appropriate scales, often cheating the natural positioning of bodies to manipulate the proportions of multiple figures in dialogue. How many celebrities has any of us ever encountered and who have prompted the thought - they're not as tall as I'd expected? The transmutation of a person into an image creates a great deal of perceptual distortion.

When we study the pool edit of this debate, we see the director has opted for a predominance of the single medium shots when the candidates speak, interspersed with the

over-the-shoulder 2-shot. Some of the network coverage, however, varies - including NBC which used the split-screen heavily. Interestingly, we also discovered that CBS seems to have recomposed the images by zooming in slightly and cropping out many of the candidates' hand gestures.



The shot selection of the debates is prescribed with extreme specificity by the campaigns and committed to a memorandum of understanding with the nonprofit Commission on Presidential Debates. However, between the pool direction (typically done by the one of the host networks' veteran live event directors), and - post-1996 - the lack of control over how other outlets reassemble the isolated camera feeds once sent out, these shot selection rules are rarely enforced. Of course there are scores of image experts and PR gurus on any political campaign, but they relinquish control once the event unfurls.

This raises two important points for our project. For one: try as producers might to create a tightly controlled and politically agnostic media object, the raw material will quickly get out of the hands of those who have an interest in that agnosticism, and into those who are free to reassemble the materials, and recontextualize it with their own supergraphics and image processing. There is a vast amount of academic inquiry into the production and

implication of political images, and the television aspects of presidential debates have been studied with an eye toward the medium's effect on voters since the first TV debate in 1960. Our project does not specifically seek to find definitive answers to televising political events, because the images created by these events are far too fluid and malleable to be singularly causative of the public's perceptions. In fact, any producer's experience of staging any film or television production will tell them that once all the pieces are in place and the rules are set, once the production begins, it is a live, dynamic, and unpredictable system that will stretch our expectations and expand our capacities. No matter how carefully planned it is, a media production once set in motion becomes greater than the sum of its parts - somehow new knowledge and new information is generated, and we must capture it as it happens, understand it, and respond to it in real time. After a new high watermark of legal wrangling was reached ahead of the 1992 debates, the Vice Presidential debate unfolded along utterly unpredictable paths forcing the producers to break several of the shot-production rules the campaigns had established. Producer Ed Fouhy remarked to the New York *Times*, "Trying to micromanage a television program with a lot of lawyers is something that's not going to work."*

This leads to the second point, which is that within the spectacle of the televised debate, there is still a complex human interaction taking place. Like a television production - and like the cascading, out-of-body experience of actors on a live stage once the curtain is raised - it is multidimensional, nonlinear, cumulative, and qualitative. It is undeniably human, and just out of the reach of quantitative analysis.

We do not intend to recreate the specifics of the medium and the gestures of the participants in rote just to prove a point about the power of mechanical replication, but rather to uncover the qualitative, interstitial forms of knowledge and perception that still evade us and wrongly convince each of us that we understand our perceptions and can rationalize our beliefs.

All of these technical elements are the baseline - the control of the experiment. By recreating them with exactitude, we are also building an experiment machine that will allow us, or other researchers, to introduce new variables and to test their effects on perception.

For example, we can replicate the debate but simply reverse the screen position of the candidate's split-screen image, or manipulate the perceived scale of each respective figure. We can experience the debates with or without hand gestures, or alter the pitch variation to test intonation on audience perceptions. By capturing these ethnodramatically performed replicas of the original debates, we can modify any aspect of the image or the audio to test the effects of these things on perception, and do so with gender variation accounted for by way of control. In fact, once we have done the work to identify and expose all these layers

of rich qualitative (and some quantitative) data within this artwork, then the artwork becomes a platform for countless other experiments and research inquiries.

There is a tremendous amount of knowledge embedded in any given artwork. In this case, we are endeavoring to make that knowledge capturable, accessible, and expandable. The process of creating the work is throwing off sparks of knowledge and discovery for us the makers constantly, and the decision to extend this performance concept into an open-ended application, media object, and data set is exciting for the very reason that it feels like this is what art has been capable of all along. Thinking our work is done when the curtain goes down, the painting is hung, or the film's credits roll has limited the impact art can have in the dynamic systems that shape our society. Perhaps there is a new role artists can aspire to, one as a source of rigorous, insightful, sustained knowledge production on an equal footing with any so-called hard science.

Applications

Inevitably we are asked, 'What can you do with this qualitative knowledge?' We have given much thought to this extended role of the artist, and so we circle back to the backgrounding at the beginning of this paper.

Artists have been habitually relegated to the role of communicator, and so many artists have become comfortable with the presentation of their product and the expectation that it will 'inspire' others to go do the follow-up work. The larger framework in which this project is situated is one which intends to reframe - for both artists and those with whom they engage - how their work and knowledge can be directly applied to problematic systems.

To take the performance arts as an example - all too often the audience in the theater is a self-selecting group. Artists and producers who hope to affect social or political movement are challenged to reach 'beyond the choir', so to speak. We may design educational programs and connect to institutions that can help bring our art-products to more diverse audiences, groups of people who wouldn't otherwise find themselves exposed to such work and ideas.

Still, though, once you're in that new context, artists still have the artwork to present, and are hamstrung by a thought-framework that often can't go beyond 'starting a discussion' or 'inspiring' the viewer to take action.

By identifying artists' unique literacies and reframing them in terms of real, capturable qualitative knowledge, we take a step to empowering artists to work well beyond their product. The "Her Opponent" project, when completed, will be an artwork that is more of a qualitative encyclopedia of human interaction than a closed entertainment

experience. It will be a resource that laymen and specialists alike can refer to and use to test their own perceptions and hypotheses.

While we know of psychologists eager to employ a tool like this to study and illustrate nonverbal communications, and media theorists interested in creating variations in audiovisual re-presentation to study the effect of electronic mediation on audience perceptions, we also know as practitioners ourselves that we will acquire new breadth and depth of specific knowledge in our work. For an educator focused on performance and research-based theater, for example, this project will provide a library of data in *interpersonal dynamics* that does not exist anywhere else. Students can learn mechanisms for memorization, methodologies for inhabiting personae, test performance strategies, and identify previously invisible variables in the interpersonal dynamic that can improve their work as performers and enrich their practice as researchers.

In fact - as rich as the concept is, and as effective as the initial performances were in uncovering hidden biases in the audience - this project only really *begins* once we have captured these performances in an appropriately designed vessel, where they can be replayed, re-experienced, re-mixed, and studied for the rich matrix of qualitative and subjective data that they truly are. Once this production and the resulting application are built and shareable, the collaborating artists and researchers involved will have contributed to the collective store of human knowledge in a way many of us previously believed only the 'hard' sciences could.