IOTA: DATA

CARPENTER / CHAN / SOLO

Between 2017 and 2018, IOTA Institute commissioned artists J.R. Carpenter (UK), Jennifer Chan (Ontario), and Liz Solo (Newfoundland) to produce new web-projects. The projects were delivered under the IOTA: DATA wing, and includes this digital research publication on the topic of web-based art communities, digital aesthetics and the historie(s) of Net Art. This project was generously supported by the Canada Council for the Arts.

FOREWORD

by David Clark

'The Wide Sky' – Liz Solo, 2017

'Important Men' – Jennifer Chan, 2017

'This is a Picture of Wind' – J.R. Carpenter, 2018

Inspired by the impulse towards dematerialization charted by Fluxus and Conceptual Art, artists took the decentralized internet that emerged from the military/academic hole it had been hiding in before the 1990s to distribute work unfiltered by a fickle art system. Artists – often emerging from off the grid places like Russia and Eastern Europe - followed the halting and sometimes frustrating technological machinations of the early days of the internet and applied a hybrid of engineering, visual, aural, cinematic, and literary techniques to create a new genre that became known as Internet art or net art. The internet also offered artists the novel affordances of interactivity, variability, and anonymity that often shaped the nature of their investigations.

Early adopters of the internet were given front row seats to a genuinely transformative cultural revolution that we are only now beginning to appreciate. Digital technology dramatically reshaped the industrial underpinnings of many of our cultural institutions (music, film, television, news). Vestigial characteristics of pre-digital cultural forms were often inscribed in their new digital versions but gradually hybrid forms (blogs, web series, online games) and all-together new forms (memes, tweets, social media) emerged. The art world seemed to initially resist the digital turn – committed as it was to its core business of luxury collectables controlled by an elite gallery system. Net art existed largely outside of or, at least, on the margins of this world until the so-called 'Post Internet' era in contemporary art started to register the effects of the internet. By then the distinctive features of net art and the many different modes of engagement

that had been explored by 'born-digital' artists had imprinted themselves on the genre and net art had established its own critical history, audience, and emerging canon. As net art was initially embraced more quickly by the film, design, theatre, and publishing worlds, digital artists got used to moving between these different artistic worlds. Net artists found that theirs was a truly interdisciplinary pursuit in the fashion of Dick Higgins' vision of Intermedia art.

These commissions by three artists demonstrate the varied genealogy of contemporary net art. Liz Solo's project has emerged from a performative practice that engages shared online virtual space (Second Life) and Machinima techniques. J.R. Carpenter's work has developed along a path defined by Electronic Literature — a concerted effort to continue experimental literary traditions within the digital world. Jennifer Chan confronts us with the mannerisms of social media and the often-elusive difference between sincerity and irony that pervades the stone-faced internet.

This series as a whole – supported by the engaging essays by Isabelle Arvers, Adrienne Crossman, and Johanna Drucker – points towards the continuing need to assert the importance of the contemporary context of the internet in understanding net art.

In many of Liz Solo's projects we are asked to consider the nature of the event online. Where once we would sync our lives to a predetermined TV or radio schedule, the internet now time-shifts the world for us. Liz Solo's work in Second Life has returned us to consider the aesthetic appeal of the live event in the online world. With this piece — essentially a science fiction film — the online event was the film shoot. The resulting film links us back to a kind of performativity that we often don't recognize in the timeless web or even the typical film but exists in the massively multiplayer world of Second Life. Thematically the work places us in the emotional life of the avatar in the film and asks us to identify as similarly displaced digital creatures.

J.R Carpenter's work about the literary aspects of the weather is inscribed by the invisible hand of an algorithm. Working with APIs that continually update the website, this work aptly demonstrates the database logic that underwrites much of the Frankenstein monster we call the internet. Carpenter's piece succinctly equates this new dynamic poetics with our relationship to the weather itself. The literary flavours of weather described in Carpenter's piece speak to the ubiquity and immersion we experience in the digital ecosystem we live in.

Jennifer Chan's work entices us to examine the disconnect between personal material and the world of marketing on the internet. Chan's assertion of her own personal inventory of "wonderfully ordinary men" disguised as a lifestyle blog is inflected by the vocabulary of the world of marketing. This work is an act of resistance pushing against the conventions of gender construction in stock footage and the modes of production that generates this type of content (photographers are deliberately sourced from femme-identified individuals). The work measures the intrusion of the internet on our actual lives in a work that confuses sincerity and parody in an attempt to create real portraits inside the machines of artifice. The internet is still young and yet the rate of the transformation of its form and reach is staggering and the wide spread influence on all aspects of our lives frightening. The issues that implicitly accompany the use of the medium today include surveillance, identity, distraction, and the nature of the control society. Artists will need to continue to poke and prod at the internet in order to act, as Marshall McLuhan suggests, as the early warning system of our culture. This collection of work is an excellent snapshot of the dynamic world of net art today and demonstrates why the internet will continue to be an important place for artists to engage their culture and their community.

JENNIFER CHAN'S IMPORTANT MEN

by Adrienne Crossman

http://importantmen.com













"HYBRIDIZE OR DISAPPEAR"

- Oliver Laric in Version (2012)

Artists working online today regularly get lumped under various monikers denoting their use of the internet as a platform. Net artists who gain notoriety online often also make IRL¹ work for gallery spac-

es, further blurring the lines of categorization between the physical and the digital. Toronto-based artist Jennifer Chan, like many others, works in a variety of media from sculpture, video and installation in addition to making work both on and about the internet. When asked how important distinctions such as net, post-internet, new media and web 2.0 are as descriptors of her identity as an artist, Chan said the distinctions weren't important at all. Her work could reasonably fit within all of these descriptors, yet she is wary that none of these terms have been around long enough for people to really know what they mean.

Web 2.0 refers to online platforms that emphasize and rely on user-generated content rather than static pages that provide information. With the growing popularity of social media sites in the 2000s, everyday users were given more agency and access when it came to sharing their experiences online. This ease of use provided an opportunity for artists to create and disseminate work with minimal programming or coding knowledge necessary.

Many of Chan's earlier web works are made in the style of user created content and fan art featured on platforms from the early 2000s such as Angelfire, Geocities and Deviant Art. Videos such as *Grey Matter, P.A.U.L.* and *Love Fighter* rely heavily on



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Enjoy over Icel have been dependent responses from the failed families from the end of the term found online footage, stock images, and appropriated kitschy internet aesthetics, coming together to make up what Chan has refers to as "rapid, remix-type videos" or "visual mixtapes"² *Grey Matter*, for example, combines lo fi animation sourced online and web cam footage Chan took of herself, overlayed with large colourful Comic Sans style text displaying what feels like deeply personal confessions and affirmations including both "I still feel like a terrible person" and "I am a woman of incredible strength and vulnerability". The piece functions as a visual essay filtered through most of the stock video effects found in programs such as iMovie, and set to house remixes of pop songs from the mid to late 2000s.

Important Men, a 2018 web-commission by IOTA Institute, signals a departure from the Web 2.0 aesthetic Chan became known for. In contrast to many of these earlier pieces, which spoke from the language of users, Important Men embodies more of a slick corporate web design. Before working at an ad agency Chan used to parody mainstream advertising, much in the vein of artists such as Jeremy Bailey and Toronto based collective Tough Guy Mountain, whose semi sincere performance art blur the line between critiquing and re-enacting the absurdity of late capitalism. She now believes that the visual language of stylized advertising and its increased prevalence in her work comes out of wanting to challenge herself away from the world of internet kitsch and to enter into a more direct dialogue with corporate culture.

Because we are inundated with slick websites and applications that dominate our digitally mediated

Break up with your partner if you hate each other. Get two cats to fill the hole in your heart.

- Brad

importantmen.com

day to day experiences, many people are unaware of the labour that goes into making an efficient minimally designed site function well. *Important Men* has been Chan's most ambitious project in terms of technical production and coding to date. There were several hiccups along the way, that Chan blogged about³, such as the development of a Q&A form, which involved extensive and unplanned debugging. Working toward a live 'professional' site that emulates the industry standard rather than parodying it, is far less forgiving than some of the artist's earlier works, a process that led Chan through what she describes as a 'learning gradient'. In many ways, *Important Men* is a living artwork. Since its launch Chan has been reworking the code in order to improve its speed and appearance. She has been periodically rolling out new content, such as "Ask a White Man", an ongoing question and answer form between the audience and one of the site's subjects, Matt. Matt is humble, aware of his privilege, and dedicates time and care to answering intimate user questions such as: "What have been the top 3 difficult moments for you in your 20s?" He answers with frankness and honesty citing Sarah Schulman's "Conflict is Not Abuse" as a book that helped him navigate conflict with friends.

Apart from Matt, the majority of Chan's subjects are men of colour and more than one of them is queer. The content of each page feels wholesome in its intimate and lighthearted depictions of its subject, including the forthcoming section "Bill Chan Life Hacks," in which Chan's father will list tips and advice

on day to day living. Chan plays with expectations around hegemonic masculinity by blending the unexpected with the mundane. An example of this can be found in the detailing of Chan's ex Brad's skincare routine and the seamless integration of his favourite brands of makeup for when he does drag.

Chan is no stranger to confronting issues around masculinity. Her recent exhibition *The Blue Pill*, a direct reference to terminology used by Men's Rights Activist groups referring to 'weak' men who respect women and believe the 'lies' of feminism, explores Chan's frustrated relationship to diversity and mundanity in the male dominated workplace. While *The Blue Pill* as well as some of her other work touch on the negative aspects of masculinity, the subjects of *Important Men* are made up of the men who have played a significant and positive role in Chan's life: as pillars of support, providers of care and advice – those who have been with the artist through her worst, and who remain. These men are often described in painfully ordinary, and somewhat benign ways. *Important Men* is selling the idea of good men. Chan is trying to convey that the aspect of being privileged is quite ordinary.

Chan's partner is featured, under a pseudonym, in one of the most tense and intimate sections of the site titled: 'My Unproblematic Life as told by my girlfriend, on me.' Albert's section is almost cringe worthy when he speaks of his lack of a passion in life and the fact that he's never experienced anxiety or depression. Passages such as these highlight the

tense negotiation artists such as Chan make in determining how much of their personal life and of those within it are to be laid bare. Feminist and net art have rich histories in their use of the confessional. The mid 90's gave us projects such as Jennicam in which 19 year old Jennifer Ringley became the first webcam user to broadcast her daily life online 24 hours a day, providing users a glimpse into the fairly ordinary goings on of a teenage girl in her college dorm room. Early net art paved the way for digital applications that most of us now use daily and take for granted. One thread that persists through many of Chan's works is the element of raw vulnerability expressed through the sincerity and sometimes uncomfortable element of self-awareness, and despite the shift in her practice to a more corporate aesthetic, this aspect has not been lost.

Each of the 'important men' have been photographed holding a plant in an unconventional container in front of a brightly coloured background. Chan's intent is to represent the men as objects of beauty, a response to how women are often idealized for their supposed connection to nature. After making work that's been mistaken as being created by a straight male author on more than one occasion, Chan decided to collaborate with a team of femme-identified photographers of colour. Although it is a key element of the project that can easily be missed, this decision was important in the act of representing a feminine eye on masculinity. The cultivation of a femme of colour gaze proves successful: the men become aesthetic objects to be

CHAN PLAYS WITH EXPECTATIONS AROUND HEGEMONIC MASCULINITY BY BLENDING THE UNEXPECTED WITH THE MUNDANE observed, and their playful and innocent demeanors convey a confident yet reserved masculinity, a palpable contrast to both online and corporate 'bro' cultures.

More than any of Chan's previous works, *Important Men* exists in the vein of artists such as DIS, the New York collective whose practice blends the glossy corporate world with the art world – perhaps too well. It raises the questions: at what point

is the artist appropriating corporate language to be critical of it rather than simply reproducing it, and what clues does the audience have in deciphering these distinctions? Although Chan acknowledges the similarity in the aesthetic approaches of her own work to projects such as DIS, she disagrees with how many of the artists lumped in this (post-internet) genre view images purely for their formal attributes, "as if an IKEA cup could be beautiful like a Nike shoe, without thinking about its social and historical attachments."⁴

When asked to explain the site *Important Men*, Chan jokingly described it as a "binder full of men," going on to call it a website modeled after a fashion portfolio or lifestyle brand, except that

instead of clothing, what is being sold is the idea of "wonderfully ordinary men". In terms of what the work accomplishes, Chan isn't convinced that it so much challenges 'hegemonic masculinity,' as the subjects are all able bodied, in 'good' physical shape and shot with flattering studio lighting, rather, it is an attempt to create a platform that highlights the positive ways in which men can be: a strategy in countering the toxic masculinity that pervades many facets of society. On it's surface, *Important Men* may be easily overlooked as a lighthearted and ironic parody of a lifestyle blog, and although in some ways that is true, it is Chan's willful vulnerability and the vulnerability of her subjects that allows for the reclamation of a softer and more intersectional approach to masculinity in both online and corporate spaces.

ENDNOTES

1 In real life

2 Erin Debooy, "Chan tackles societal themes in 'Blue Pill'." October 04, 2017, Brandon Sun, https://www.brandonsun.com/local/chan-tackles-societal-themes-in-blue-pill-449347743.html

3 Jen Chan, "What I Learned From Not Planning A Web App (from Start to Finish).", blog entry, December 12, 2017, https://dev.to/jenninat0r/ what-i-learned-from-not-planning-a-web-app-from-start-to-finish-14a

4 In conversation with the artist

UNDER THE WIDE SKY OF LIZ SOLO

Isabelle Arvers

https://thewidesky.ca/

"NOTHING IS MORE REAL THAN APPEARANCE AS APPEARANCE."

- Introduction to aesthetics, Hegel

Liz Solo is a performer and a musician who discovered virtual spaces as a platform for collaborative performance with artists around the world. In 2006, she co-founded The Second Front¹, the first collective of artists in Second Life for performance art and installations. She is also part of The Avatar Orchestra Metaverse² (founded in 2007), where the artist uses Second Life as a shared space for visual and sound experimentations, turning avatars into sound instruments, by uploading sounds samples and using Head up displays³ to help the audience to visualize in real time who is playing a note. Liz Solo curates and manages Odyssey⁴, a contemporary art and performance simulator in Second Life dedicated to international artists, enabling them to create synthetic environments, to give talks, host performances and show their artworks.

The Odyssey Simulators hosts many artists includ-

ing The Avatar Orchestra Metaverse, The Odyssey Group, Bibbe Hansen, Alan Sondheim, Erik Zepka, Patrick Lichty, Liz Solo and the Senses Places Project by Isabel Valverde. They use these platforms to perform remotely in virtual worlds or in museums and galleries. Their artworks transform this virtual platform from a place where everything is available for purchase and consumption into a shared space of music. creation and distribution. This use of sound streaming can also be found in the 'Locus Sonus'. an art and research project hosted by Artschools in the south of France which focuses on sound and spatialization. Their sound banks come from the manipulation of sound objects by the virtual audience; they stream sounds from all around the world as well in virtual spaces like SL⁵. In projects such as this, virtual spaces become a site for collective action and creation that provides artists a second identity as well as a second space to imagine a new kind of remote collaborations, allowing simultaneous actions and the mix of physical and virtual space. Virtual space thus becomes a space for creation, an exhibition and a distribution space.

Liz Solo also performs in mixed realities with virtual spaces projected in the physical space of a gallery or a museum. In addition to sharing a space to perform collectively and for collaborative creation, Solo takes on the virtual space of MMORPG (Massively multiplayer online role-playing games) such as in World of Warcraft (WOW) to use as a playground to deal with several matters like peace or behavior change. In WOW, thousands of people interact within the same battle between class and race, making it quite adventurous to promote peace, hugs and collaboration between so called enemies. Liz Solo



is part of the Third Faction, a peace focused group in WOW whose goal is to participate in cross factional missions and fight dominant culture related to war. This virtual activism can be linked to artist Angela Washko's work, also performed in WOW, as a feminist activist who initiates a dialogue about the way women are treated in this virtual misogynist world, and as such Washko founded the Council on Gender Sensitivity and Behavioral Awareness in World of Warcraft in 2012.





Actions, performances, music composition, space and avatar creations led Liz Solo to the genre of machinima to document events and online performances created by her efforts. A machinima is a movie cinematic video created in real time using 3D engines and virtual cameras. It can be made with a game engine or inside a virtual environment like Second Life, using a virtual camera to shoot and present actions in real time. In 'The Third Faction'. Liz Solo used machinima to create the /Hug Instructional Video8. a machinima made to promote behaviors in WOW counteracting the violent behaviors often found in these games. A performative study of gamer behaviour was also presented in Demand Player Sovereignty, a machinima used in a workshop given by The Third Faction at ISEA (International Symposium of Electronic Arts) in 2011 (in Istanbul) around discussing a collective action for a change in gamers behavior.

These actions – promoting peace and collaboration instead of aggressive behaviors – operated by the Third Faction in WOW (like the /Hug instructional videos) also recalls Joseph Delappe's machinima: 'Gandhi Salt March Reenactment'. To shoot his machinima, Delappe walked on a treadmill that was digitally enhanced to link his movements to his forward moving Second Life avatar. Over the course of 26 days, Delappe reenacted Gandhi's famous Salt March of 1930, a 240-mile walk protesting the British Salt Act enforced by British rule in 1882. The artist's recreation of the seminal act of protest took place at Eyebeam, New York City and in Second Life.⁶

Another game activist and art curator, Anne Marie Schleiner did a project in the network game Counter Strike Untitled Velvet strike, which consisted of tagging walls with love and peace graffiti instead of fighting against other gamers. These in-game actions often result in the artist gamer being killed by other players but some of the artist's intentions could be read by others and perhaps change some behaviors in its act.

For the IOTA: DATA commissioned website and virtual exhibition 'the wide sky: an archive'⁷ Liz Solo created a science fiction machinima shot in Second Life and viewable online in nine parts. It can be viewed in linear time or selected randomly, allowing the viewer to create their own narrative. The commission also involves a virtual exhibition, where the viewer can create their own avatar, and

wander the exhibit, modelled after Solo's storyline of the machinima: a digital archaeological dig of an unknown and dead world, to find and preserve memories of that world, is survived only by the machinimas which piece together a documentation of a dig gone wrong. Unlike her previous collaborative works, Solo worked almost entirely on her own to build the environments and characters.

"...THE IDEA OF INSTALLATION IS A WHOLE OTHER ANIMAL NOW. YOU CAN ACTUALLY BE INSIDE WHAT YOU CREATE."

She wrote the story and enacted the narrative using some prefab elements in the scenery for her virtual exhibition. What makes this project quite unique from her other works, is that it is a film in which the viewer can enter by creating an identity on the wide sky website and getting inside the Second Life Odyssey Simulator that hosts the wide sky memory project. A participant can also leave a memory behind in the memory archive on the artist's website. When a viewer gets inside the wide sky, they can enter in the virtual world scenery on which the machinimas are based, and discover all these spaces from any point of view, rather than from a predesigned cinematic perspective. In the interview Liz Solo gave in Scope⁸, she shares her enthusiasm about Second Life where "... you have an opportunity to surround the viewer in the work. The idea of installation is a whole other animal



now. You can actually be inside what you create." I had the chance to interview Liz inside the wide sky project and the in-world experience is amazing. Being immersed for a little while inside a virtual environment creates almost the same sensation than being on a theater stage. Unlike the viewer of a movie, it becomes possible to get beyond the limits of virtual spaces, at the end of the sea, at the border of the bubble surrounding it, above the space and outside the story. It is a very peculiar and privileged moment, as you feel somehow part of it. During the project launch in the fall 2017, visitors were invited inside the wide sky. A third form of participation is also given to the audience on the project website by asking them to share their memories online and make them accessible in the memory archive.

But the wide sky is above all a narrative machinima and in this science fiction movie, we follow a crying Artificial Intelligence character. She cries so much that she creates puddles, rivers and in the end a very poetic ocean of tears. Besides this main character, a magpie bird haunts the entire film. The other characters are disarticulated puppets helping the Artificial Intelligence in her experimentations. In their attempts to analyze artifacts and make scientific experimentations on some remaining organic life (a magpie feather), they end up annihilating themselves, and in the process destroy the archive museum and its lab which releases the tears and flood their universe. The AI succeeds to escape and discovers the sky for the first time. In the end, nature overcomes and engulfs everything. It is an allegory of how Liz Solo envisions our world threatened by our race for technological overconsumption, in which tears of the AI represent its compassion for humanity.

During my interview inside the wide sky, Liz Solo explained to me that for her "Humanity is trapped in a paradigm of conquest, of empire, obsessed with control, with mastering the natural world. This will be our undoing. When new technologies are introduced it's often a wonderful time where people explore freely, a time when innovation happens, much like the way the early Internet was and the way some of the new VR communities are now. Over time capitalists come and build on what communities create, they attempt to suck up every resource for themselves. This is the world we live in — real and virtual. It is unsustainable."

The first scene begins in a former subway station, water flowing over the former railway. Then a rat scurries into a scene of an abandoned children playground. We can hear the sounds of children who deserted this world. A magpie is watching from above and mimics the children's voices. We follow the rat in the playground surrounded by buildings, a little blue flower gives the signal that some organic life remains. Robots appear and fly above the playground. They tend to eradicate any organic life left. Green rain falls and gives a feeling of post-apocalyptic condemnation to the scene. The world as we know it has disappeared, we can only hear children's voices but no human beings are left.

Centuries later, in the second scene, we enter the archives museum, where we follow an avatar. It is an artificial intelligence. It cries and the tears are falling on the floor creating a large puddle. The Al has a woman's body. We are in a futuristic scientific lab, some red light seems to announce an imminent danger, and the AI accesses the memory archive where blue cylinders are turning. We are in the archives museum. The face of the AI is blue and reminds me of the work of Pascale Barret⁹. a performer based in Belgium who also performed in Second Life. As a reflexion on the representation of identity in virtual spaces, Barret plays on the physical appearances of her avatars with a low graphic definition and oversized eyebrows, like a trans digital avatar. On the contrary, Liz Solo Al's body is hyper feminized with large breasts and a

very good looking body. While the avatar created by Liz Solo is highly polished, with an almost perfect face that makes it look like a complimentary augmentation of 'perfect' and somehow untrue or unreal, Pascale Barret's avatar intends to mock her second self. As I was wondering why and if this avatar was typical for Liz Solo for her virtual performances, she answered: "My avatar is like my puppet — an extension of me. She is also an actor (as am I). So the avatar is me/my puppet and in the wide sky she is playing a role. For the wide sky the avatar was upgraded and modified, outfitted and programmed — so while she is my avatar, she is my avatar playing another character."

In the third scene, while entering the rez room, we discover a science fiction lab behind bubbles, where three disarticulated puppets - clone attendants - are taking care of the AI when she reintegrates her body. They are making experimentations and then analyze some artifacts. One of them is a feather and contains the memory of the magpie. This analysis destroys the clone attendants as if something natural or organic could destroy this whole synthetic world. This duality between reality and its virtual representation can also be seen in 'I Mirror'¹⁰, a machinima by Cai Fei shot in Second Life, where reality contaminates the virtual world. We follow the wanderings of China Tracy, digital avatar of Cao Fei, and from the first images we discover that the virtual world is only the decal of the real world. As if without reality there wouldn't be any virtuality imaginable, which is quite sad if we think about human imagination as being unable to create virtual images that wouldn't mimic reality. For Liz Solo, "Second Life is only an extension of real

life, two different places which represent the same reality."¹¹ An extension of our world with its entire user generated content and where everything can be sold: people, things, spaces, etc. Created in 2003, SL is still relevant, with more or less 800.0000 users per month.¹²

Following the scene in the Rez room, the wide sky's Al cries still, and tries to analyze her tears, but the puddle grows and floods the lab under her feet. The AI is surrounded by water in beautiful scenery - my favorite scene - and flows everywhere, falling from many different directions, creating cascades and rivers. For this water representation, Liz Solo used pre-animated prims of water textures. This 3D water representation and its different aesthetics is the subject of VR3, a conceptual game made by Pippin Barr¹³. In VR3, we enter in a minimalist museum full of boxes. Each box contains a different 3D water representation - ocean, water, water flow created by different artists. Each 3D representation of water has its own aesthetic, depending on the flow, the speed, the amount of realism and pixels in its representation. Liz's work could be a nod to the evolution of 3D representation and the attempt of 3D animations to mimic reality. In the last 30 years, every decade allowed more and more realism in the depiction of hair, water, human gesture, and water resisted a lot in this attempt to look like real.

As a critic, I have always found this attempt at the real as problematic. I've wondered why we use algorithms to recreate something that already exists in real life instead of imagining something impossible, totally out of our mind. This is what Jean-François Henry, a well-known French 3D director, tells us about the evolution of 3D animation and the need for creators and artists to "really be able to create with CGI (..) a world that does not exist in reality or elsewhere, multiple worlds, different worlds, worlds out of the imagination and not fundamentally copy worlds".¹⁴ In *Real wars esthetics and professionalism in computer animation*¹⁵ Lev Manovitch explains that realism and illusionism is a way to legitimize the social status of technical proficiency in CGI as ultimate professionalism. The more 3D animation is smooth, accurate, and detailed, the more it looks professional and valuates the production to the point of legitimizing the social status of the client. As I have a personal issue with hyper realism in 3D images, I asked Liz Solo her point of view about it:

"I admire the skills required to create hyper real environments, but it is not an area of interest and I often find these spaces to be somewhat sterile. Actual reality is hyper real enough. That said, I do understand the appeal/benefit of sitting on top of a virtual mountain when you do not have access to a real mountain, I am thrilled with the level of detail that can be achieved with the tools that I use, but I prefer to stay in fictitious, more abstract, magical places, or altered/ alternative realities/universes."

In the Wide Sky, only two elements aren't synthetic: when the AI tries to analyze her tears, we can watch real clips of sea waves in the laboratory screens. As water damages everything, the AI escapes from the flood by climbing on the top of a mountain. She sees the sky for the first time and this wide sky above her head is again a clip of a real sky. Arrived on the top of this mountain, the AI lies down, while flowers and other botanical slowly engulfs her. The AI slowly decays, her face damaged, and she disappears under the sky. The real sky covers everything as in war, and everything disappears under water as if reality was fighting against virtuality.

In Simulacra and Simulation (1981), Baudrillard denounces the fatal role of the digital. The computer operates the substitution of the real by its hyper-real double, more realistic, more perfect, more real than the real. "It is that of an unconditional realization of the world by the updating of all the data, by transforming all our acts, all the events into pure computer science: the final solution, the anticipated resolution of the world by cloning reality and the extermination of the real by its double."¹⁶

Why is there a need for a double reality, when imagination could fill that which resists *truthful* representation? Let's make some space for abstraction, as it proceeds from the sensible to the intelligent, and for imagination: the intermediary, infinite realm between them.

ENDNOTES

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2 http://avatarorchestra.blogspot.ca/

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DYNAMIC POETICS: JR CARPENTER'S THIS IS A PICTURE OF WIND

Johanna Drucker

http://luckysoap.com/apictureofwind/

Weather is a challenging muse, combining fickleness and constancy in unequal measure. Ever-changing and always present, the weather envelops the planet as a living system in endless flux. The fluid dynamics of the atmosphere constitutes the most complex physical phenomena for which analytic models are constructed. No single version, or general set of principles, ever accounts for all granularities, simultaneities, conditions, changes, rates of change, or forces at work. Weather is everywhere — under the table and in the garden, hovering on the seashore and creating massive fronts and pressure systems throughout the entire globe.

Poets and philosophers have long found meteorological complexity seductive — a muse that can't be tamed or contained by language will always exert a compelling force. Our ancestors were as enthralled by the resistance of weather to analysis as we are. By the 4th century BCE, when Aristotle wrote his treatise, *Meteorologica*, Babylonian and Chinese scholars had already wrestled with the difficulty of the topic for centuries. Aristotle tried to generate a systematic framework from his observations, to understand weather events as the outcome of invisible processes.

This basic difficulty – impossibility – of containing the complexity of weather within systematic description and analysis has persisted for millennia. Now this challenge informs the poetics of J.R. Carpenter's *This is a Picture of Wind*. Carpenter has a long-standing fascination with natural phenomena – a glance at her writings such as *The Gathering Cloud* or *Once Upon a Tide*, reveals persistent attention to themes of storms, trees, tides, water and so on. The current project begins with the realiza-



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Mists make dangerous travel. The air loaded with freezing particles. Attached to fixed objects. A blade of grass. Some garden shrubs. Spreading tufts of crystals. Gigantic speciments of snow² white coral. An elegant fringe. The rime falls. Transparent. In heaps beneath the trees. ⁴⁶ tion that the detailed observations essential to the construction of understanding grasp only a part of the inexhaustible phenomena. From within our human standpoint, the feel of the breeze, shifts in the air, smell of moisture, sense of cold or humid-

Mists make dangerous travel. The air loaded with freezing particles. Attached to fixed objects. A blade of grass. Some garden shrubs. Spreading tufts 🍕 crystals. Gigantic specimens of snow-white coral. An elegant fringe. The rime falls. Transparent. In heaps beneath the trees. 47

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ity, all amount to essential indicators of complex conditions. We create metrics of description to grasp dynamic forces at micro to macro scales. We draw our frames around the local, the regional, the national, and the global to assess the workings pressure systems, thermal conditions — and the winds. For Carpenter, the wind has become the metonymic indicator par excellence, the part of weather that touches her, literally, with its breezes and breath, its gentle or abrasive touch, soft, moist, or biting hard. Her language is not metaphoric, but instead grapples with the actual, addressing the difficulty bringing sensing and knowing together.

Carpenter brings multiple dimensions into play here. She draws on a wide array of sources for her language. She mined her own notebooks and diaries held at various archives, such as the National Meteorological Library and Archive in Exeter, the writings of 18th century poet John Clare, and the work of his contemporary, Francis Beaufort, who codified the scale we still use for measuring wind today. Then she collected an inventory of poetic expressions of wind speeds which she linked to a live data feed. On screen, these phrases are randomly displayed in response to the current wind speed. "Pleasant winds," "a whisper to the sail," for instance, fall into the category of "gentle breeze" on the Beaufort scale and so are called into view if the wind is between eight and twelve miles per hour. The wind is pictured in real time by using these verbal snippets of description. The integration of poetic phrases and random selection mimics the meteorological combination of specificity and chance. Every instance of observation of the wind is particular, but no algorithm or model or poetic projection can forecast the next event with precise accuracy. As the wind changes speed it alters the data to which Carpenter's inventory of phrases is linked. New snippets of text are displayed on screen, textual windsocks, fleeting indices of ongoing events.

By choosing a calendar grid to organize the presentation of observations in *This is a Picture of Wind,* Carpenter puts the dialogue between the phenomenal world and its connection to human frameworks of perception into immediate, graphical, view. The grid arbitrarily marks our days and months off from each other. These structures are also of ancient lineage. All early humans marked time by observation of lunar patterns, and astronomical observations, aware of the year and its cycles. Every culture including the Mayans, ancient Chinese, Babylonians, Romans, and others created a system of months, chunking the continuum of time into units associated with gods and myths, labors and tasks, times of harvest, flood, and fallow fields. But the wind cannot be caught in calendar frameworks any more than the waters of the sea are held in a net. The wind rushes through the rational structure, even as it leaves behind, in this case, a residue of poetic notes, observations formulated in relation to fleeting sensations of the volatile atmosphere.

Writers have long courted the wind, marked and measured their relations to the weather, from scientific and poetic perspectives. As already noted, Aristotle, the paradigmatic Western poet-scientist, pondered the effects of the elements and their forces, puzzling over causality and influence. He knew what vapor was and how it formed. He wrote between metaphor and analysis in describing many of the phenomena he observed, describing a thunderbolt as an exhalation from a cloud, and a whirlwind as a trapped hurricane. René Descartes took up the topic, drawing diagrams of rising forces in the atmosphere, and the generative energy of hot air to make the winds. The language of weather complexifies over time, becoming codified in the science of rational systems. Still, the richness of the meteorological tongue is never adequate to the phenomena. The ever-present mystery of the

weather beguiles the imagination, and passages in medieval encyclopedias and modern texts alike are filled with attempts to create stable descriptions of the fundamental instability of the "flow and ebb" (the phrase is in the title of ninth-century encyclopedist Al Kindi's discussions of the tides and temperature) of phenomena under observation. The changeable winds, it seems, are a generative poetic force.

The age of instruments augured greater precision in measuring the volatile phenomena under observation. In the Renaissance, Leonardo, Alberti, and Nicolas of Cusa, aided in the drawing and design of tools to measure humidity (using a hair) and the speed of wind, in an era where no standard metrics yet existed. Reliable scales, theories of gases, descriptions of a global system of winds all emerge within the serious frameworks of 18th century ra-

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Mists make dangerous travel. The air loaded with freezing particles. Attached to fixed objects. A blade of grass. Some garden shrubs. Spreading tufts 🕸 crystals. Gigantic specimens of snow-white coral. An elegant fringe. The rime falls. Transparent. In heaps beneath the trees.

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tional science. If weather cannot be tamed and contained by reliable description, it may at least be approached through empirical paradigms. One stable nomenclature, put forward by Luke Howard in the beginning of the 19th century in his essay *On The Modification of Clouds,* feels like a harbinger of J.R. Carpenter's project, with its thick adjectival field of terms. Not surprisingly, the text is among those she pursued in her research.

The fiendish mechanization rampant in the 19th century attached itself to meteorological pursuits as well as to other fields. New ways of studying steam and vapor, pressure and density, temperature and viscosity all contributed to an elaborated language of description. But the 19th century is also the period of Romanticism, the poetic imagination sprung forth in full engagement with the forces of nature as one of the very hallmarks of its ideological agenda. The German, Novalis, made detailed observations of the weather in his diaries, charting the moods of the atmosphere in counterpoint to his own: "first a thunderstorm then cloudy and stormy – very lustful."1 Weather provided an external scene that manifests the shifting conditions of interior life. The observable moods of external and internal "weather" could be used to mirror each other, and to pose the basic conundrum of the adequacy of language to represent the state of the spirit. For a Romantic like William Wordsworth, the concept of atmosphere served a multitude of poetic purposes.² Other 19th century writers, such as Thomas Hardy and Joseph Conrad, used their descriptions of the weather to anchor their writings in a relentless realism, showing the workings of a natural world in which human behaviors are part

of larger complex systems whose forces overwhelm us even as we struggle to act with agency. How to conjure frames of reference suitable to assess the wind, the air, and the endlessly changing motion of the atmosphere? The deeply subjective experience of heat and dryness, humidity and the many moods of the air all contribute to the creation of metaphoric expressions rooted in the conditions of the atmosphere. Weather posed problems too complex for natural science, with a descriptive apparatus premised on morphology, mechanics, and linear systems. The poets fared better, more receptive to the vicissitudes of all things and the impossibility of controlling the restlessness of the atmosphere.

A long list could be compiled of the many poetic engagements with the metaphoric, realistic, and scientific events of meteorological systems and their relation to the poetics of their time or genre. Dylan Thomas's, "A Process in the Weather of the Heart," offers an apt object for such study, as does "The Summer Rain," by Amy Lowell, or "Storm" by H.D. The language of weather is seductive in all of its dimensions, so richly inexhaustible as both inspiration and expression. And no reflection, however brief, on this topic can make a claim to legitimacy without also mentioning works by Percy Bysshe Shelley: "Ode to the West Wind," and "The Cloud," now two hundred years old. The "Ode" imbues "wild spirit" of the wind with fierce power, and tracks its forces through seasons and of hope and despair, while the cloud created in the "blue dome of air" is always prepared to "arise and unbuild it again."

Weather serves, and wind and atmosphere as well, to call forth observations and projections of moods

at every scale and level of detail. Meteorological phenomena offer other provocations as well. In the mid-to-late 20th century, weather was crucial to the development of chaos theory, which brought essential augmentation to the linear approaches of classical physics. New languages and approaches arise in poetics as well (well, well, well, three as wells in a row). Our 21st century conceptualisms construct our language and compositional strategies differently from those of the Romantics. We eschew the evidently lyric voice, the too-revealing and inflected subjective interiorities of another era. Carpenter's systematic approach to her "picture" of the wind has just this kind of contemporary quality, not metaphoric, but striving to close the gaps between perception and knowledge, language and sensation. Motivated by a sense of urgency in the face of very real and recent changes in climate, written in response to monster storms in the winter of 2014, the piece nonetheless participates in this long tradition of struggling with the realities and futilities of trying to apprehend natural phenomena. Our human horizons bound us, and yet, that limit provides the very frames that allow reference to matter. Carpenter's observations root us in the everyday where the effects of change register dramatically within the scale of domestic scenes, familiar landscapes. Weather, after all, is integral to the quotidian, the ordinary, the lived mundane daily experience. Drops of rain, mists, the "always raining" conditions, "bucketing down" and floods. These straightforward observations, interspersed with details from the landscapes of cultivated shrubs and fields, populated by birds and familiar plants, knit the weather and the life together.

In the grid-spaces of Carpenter's display, the language of personal experience and observation are intermingled. Behind a set of distilled observations of any individual month, statements rotate randomly. In the entries for September, "strong winds" and "wet day and night" or "stratus cloud" and "thick mist" establish the tone. The intimate, journalistic, observations are more detailed: "Late summer thunder. Heat rising out of nowhere. Elegiac, but we'll take it." In this short segment, the sequence begins with a flat observation ("summer thunder"), followed by an ominously cast suggestion ('out of nowhere"), finished by a return to the fully subjective "we'll take it"). First the world, then its potential, then the centrality of the perceiving subject within it. The division between two levels of texts (large grey-blue display, small lines in black) is marked by font and also by actions. The poetic lines of observation stay stable in the visual field. The larger steel-blue text rotates through. Above, the current wind speed triggers a changing display. The instability of the wind, the weather, registers because what was once present is then here no longer. Picture is formatted with the small screen in mind, the personal device, phone, where our intimate ongoing check-in with news, weather, communications, and updates occurs.

We feel the buffeting of body and spirit in the texts, in statements like "Jacket off wind. Jacket on sweat. Jacket off rain." Carpenter recovers her shivering, the walks, winds, and disconnected moments of reports lifted out of their context and put into their calendar frames. The textual "picture" is augmented by a map of southwestern England, where the observations and events took place, surrounded by a sea dotted

with data, the sounding of ocean depths. But no amount of concrete information or specificity overcomes the larger poetics of the work, which in its direct engagement with description frees the poet's language to detail the general within the particular. Poets are not strict Aristotelians, nor Cartesians, and vet, the observational techniques and the grid serve to structure the distilled texts from the complexity of experience. Limited to the minimal, the poet's language has a vibrant potency. Understatement will always be a factor in relation to the human articulation of natural forces, and here that comes clearly into focus, as the condensed statements refuse any elaborate embroidery, presenting their spare case, and leaving it at that. The strange tension between the impersonal strength of weather and the deeply suggestive effects on the psyche remains even as the weather seems to speak itself, as a system. The impersonal constructions, "it rains," suggest impersonal agency. But we internalize its "sunshine and shadow" and "doubting light" unable to keep the external conditions from having an effect. The calendar's combination of fictions – as an accounting device and a framework – performs its work of containment but with a dubious degree of success. The language of "dreary hued days" and "short-lived rainbows" leaps out of the boxes.

The picturing that occurs is not only of wind, but also of whims, moods and troubles, the aspirations of breezes and pressure systems changing. Can we catch these subtleties and complexities in language? In verbal image? Perform a "picturing" of the wind? We can try, Carpenter shows us, and for our efforts, be rewarded by the poignant need to mark the volatile moments of our physical and cultural atmospheres. In making such a record, we still strive to model some understanding of unpredictable forces to whose effects we are constantly subject – and to close the gap between being and knowing, sensing and representing.

ENDNOTES

1 Novalis [1978], I:463) (Die Thaitigkeit des Raums und der Zeit is die Schopfungskraft und ihre Verhaltnisse sind die Angel der Welt). [p.66, John M.Baker, Jr., "Loss and Expectation," Romantic Poetry, Volume 7, edited by Angela Esterhammer.

2 Thomas Ford, "Romantic Poetry and the Grammar of Weather," July 18, 2017 http://romanticcatastrophe.leeds. ac.uk/romantic-poetry-and-the-grammar-of-weather/

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SIX QUESTIONS

with J.R. Carpenter, Jennifer Chan and Liz Solo

#1 IOTA: Would you say the web succeeds at being a decentralized (autonomous and authored) space in either your creation of non-linear art events or in the web art of others that you have experienced?

Liz Solo: I wouldn't say it succeeds completely. Because the tools and delivery systems involve the platforms and structures of the Internet (often gaming structures) there are always limitations on autonomy. The work instead makes the best use of the different spaces and often challenges the limitations or makes inquiry or intervenes. That said, once the web-based work is projected outward from the web into real space (as in a hybrid-reality performance event) it is more possible to achieve an autonomous and authored space as the web elements become more malleable.

Jennifer Chan: I don't know how one would measure the success of a principle the Internet is built on. I don't think any online space is autonomous unless you create a local area network or a virtual private network – as in a company network – which is separate from the rest of the Internet and can only be used by invited members with

authorization. Still then, you'd be relying on computers from Apple or PC or using a Linux, require cables, routers, modems from Internet service providers.

In terms of the work of others, I really like how E. Jane's work is quite effortless and deliberate in her use of Photo Booth to perform "Mood Exercises", or her instagram takeover where she posted a series of statements about being black, femme, non-binary and queer.

J.R. Carpenter: The open-ended, non-linear, inter-textual, multi-modal, and yes decentralized nature of the internet — and that I could post or publish to it directly — freed me early on from the constraints of other longer-standing structures of power and control. I have not had to abide by the physical constraints of either the printed page or the gallery space. I have not had to seek permission or approval from galleries, curators, editors, or publishers before trying stuff out in front of a live audience.

I now work across and between physical, digital, embodied, encoded, networked, narrative, and poetic forms in ways that I believe the hybrid physical, digital, global, nonlinear structure of the internet has made possible. The web has brought decentralized and non-linear narrative structures into our daily lives, making what may once have been highly experimental art and writing practices intelligible to a fairly wide audience.

#2 IOTA: Has your understanding of the online user who can experience more and more networked systems such as satellite data, gaming structures and participatory web 'events' changed the way you make your works accessible or your critique of those systems?

LS: Yes. Since the work, at least partly, takes place within these new structures it is essentially "of" these spaces and utilizes their inherent structures. The work is often

a response to these structures with users being invited to interact via the interface, using available tools, but maybe looking at the space in a different way. Usually there are unanticipated moments or effects so the work, by nature, must be continually responding to whatever happens and to the environment.

Sometimes the presentation is a participatory event or is a direct comment on gaming structures using the game as a platform. So, I bring the work as directly to the online user as I can, in their environment, and play with and within the structures and social mores of those online communities.

JC: I'm highly unsure to what extent my commissioned work 'Important Men' is critical of itself. The lifestyle-website is pretty popular online, in fact it was an attempt to make something sleek that masquerades as an ideological catalogue of "this is what some ordinary men with unconscious feminist actions look like". I'm really making propaganda and I hire people to help me shoot nicely, but it's from a team of one.

JRC: My understanding of the online user is shaped by the uncomfortable awareness that I too am an online user. I too expend free labour as I consume third-party proprietary products, even though I bloody well know better. I too contribute biometric data to facial-recognition systems masquerading as social networks, against my better judgement. So when I say it pains me how unaware the online user is of the myriad of networked, surveilled, and encoded systems which increasingly shape our daily thoughts and actions, I'm always also referring to my own limits in comprehending the implications of those complexities.

When I'm making work online I'm always also trying to make sense of the world in which that work operates. I try to keep it accessible to all those folks at home, or at work, or at school, who may be running older browsers on older machines with slower connections strangled by network security restrictions. I try to aim for graceful fails. #3 IOTA: Though some parts of the web remain less populated and more anonymous (i.e. Darkweb), is there a way to resist the Web which, as it becomes more and more populated has replicated much of the social constructs of our offline network, and do you consciously resist or intervene in the colonial and gendered ecosystem that is reconstituting itself virtually?

LS: It is becoming more of a challenge to resist the colonization of the Internet because it is so insidiously encompassing. The reality is that the Internet has become a powerful device in maintaining biases, stereotypes, bigotry and outmoded power structures, mostly because the Internet is controlled by profiteers employing corporate ideologies wielding big data. I suspect that eventually so many "users" will be marginalized that this control will be broken down, the lie of big data (tools used to apply existing biases to human beings) recognized and the movement to re-create the Internet will grow. Strong communities are forged when people have a vested interest and the ability to create their own paths, spaces, networks, and worlds – (i.e. freedom).

I actively resist being tracked. I use open source browsers and search engines, file sharing, open source or hacked software. I am attracted to the communities that manage to form within the structures of the web and I organize or contribute to resistance happening there. This can be as literal as formal online protests and marches in synthetic spaces, or subverting game structures by inventing new ways to interact with existing games, critiquing virtual culture with satire. One of my favourite things to do is take mainstream news media and re-edit it, turn it around and feed it back to the Internet in an altered way

JC: Whether there's more or less people online, doesn't change those interactions, it's how groups of different ideologies use it that is important. Certain platforms may replicate colonial structures (i.e. Facebook's real-name policy or pay-to-use

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software) but I'm not behind the claim having growing usership means there will be more colonial tendencies. It's filter-bubble theory (i.e. seeking out information and community members who share posts that affirm their own ideologies and tastes only.) that has people reeling since Trump's election. It's easier to curate your newsfeeds, block trolls, stay connected with people of the same race and class strata as you than it is to get a varied palette of media sources and meet people unlike you. Oftentimes the heavily racialized or diasporic user demographics (of Twitter for example), are overlooked.

I think a lot of our speculations on how to intervene in the "colonial and gendered ecosystem" revolve around the anglophonic internet, like if we got down to platforms specific to different countries, it is probable xenophobia, femme bullying or homophobia would appear on there too, I'm just not sure how people can actively intervene unless they choose to either not engage, make fake online personas, or work within the industry and create new systems altogether. As for me... I start by finding peers online, and I do progressive things anonymously online or only in person. Part of it is to do with not taking ownership or speaking space over an issue that doesn't affect me; another part is staying employable-looking.

JRC: The problem isn't that the web has become more populated, it's that it's become more owned. The "colonial and gendered ecosystem that is reconstituting itself virtually" is doing so almost entirely within corporately owned proprietary platforms in which all users, whatever their politics, are contributing free labour to the capital growth of a corporate entity. Most users, and again, by "user" I also mean me, can no longer or choose not to distinguish between the corporate web and the open web. Continuously calling attention to this distinction constitutes a significant act of resistance and intervention. The more proprietary, predatory, and puerile a place the corporate web becomes the more committed I am to using the open web in poetic and transformative ways. I am always looking for ways to learn more about

and raise awareness of the underlying physical, environmental, economic, social, political, and linguistic structures of the web.

#4 IOTA: Immaterialism has often been blamed for the exclusion of the webbased in art collections for example; is immateriality a tired subject in relation to the Net and do you consider your web-based work immaterial?

LS: Immateriality is indeed a tired subject and a word used to deflect attention from the fact that institutions and academia (for the most part colonial structures with inherent biased practices are:

1. perpetually behind the times, and

2. threatened by new things that challenge current structures, policies and practices, and

3. unaware of and/or uninformed about much of the new art making practices, forms etc going on in the world.

In the case of my work — it often involves installation and/or performance for audiences (both in synthetic and projected to real spaces and vice versa) as well as image making and machinima. Web-based performances are as immaterial as performance art or theatre, machinima is as immaterial as film and video. So, I have direct interaction with and feedback from audiences during performances, I see my machinimas being screened to audiences.

JC: Yes, tired. No, not immaterial. Maybe the labour we do in everyday life is though. Ditto Liz on point 1-3. Next question! **JRC**: I would argue that immateriality is exactly what we should be talking about in relation to 'the Net' right now. The internet is made of copper, aluminum, iron, rubber, silicone, iron, glass, steal, and concrete. Data centres world wide use over thirty billion watts of electricity annually, much of which is generated by burning coal. And yet, tech giants, social media platforms, universities, libraries, governments, and yes some art institutions persist in the perpetuation of the myth that the internet is somehow both immaterial and universally accessible. Why? What neoliberal logic has convinced these institutions that it is cheaper to offload the material substrate of our collective cultural production to online repositories than to preserve media across multiple formats? I'm thinking about the CBC being ordered to dismantle its vast CD and vinyl archives in 2012. I'm thinking about the six branches of my local library network which were closed in September 2017. What consumer-fuelled desire has convinced us that digitisation constitutes progress? Perhaps the same one that has so firmly equated collection and ownership with status in our minds.

#5 IOTA: Does human psychology feature in the design of your works, and is there an element of spontaneity that you can design in your interactions?

LS: Elements I like to include in much of my web-based work are participation and feedback. I believe people like to share their experiences so I try to entice them to do that, by asking questions and giving them the means for sharing their ideas, memories or experiences; by inviting them to participate in performances or to leave artefacts behind in virtual/online/web-based spaces. Certainly the performance elements of the work, because they are essentially performance art works, create the space for spontaneous interactions and occurrences.

JC: If eliciting a certain emotional response through messing with advertising aesthetics counts, maybe manipulation of human psychology (particularly the way we're used to seeing idealized people in images) features in Important Men. I haven't airbrushed anyone at all but good lighting and camera angle really makes a difference in heightening people's physical features.

JRC: Over the past six or seven years I've been exploring computer-generated text as a mode of writing that incorporates variability, instability, transformation, and change into the process of composition, so that a work is never fixed, final, or stable but rather, constantly subject to change. All digital art and writing operates in in-between spaces — between server-side and client side, between source code and output. This inherent transience poses exciting new possibilities for scripted live performance. Computer generated scripts change even as the performers are reading them, confusing and confounding the already complex relations between looking, reading, and speaking.

#6 IOTA: What's next?

LS: In terms of accessible technology, we've been on a plateau for some time. I think the next big leap will be a jump in augmented reality technologies — when the virtual becomes a more obvious and accessible part of/overlay upon the real world. Individuals may have the ability to directly impact and shape themselves and their environments, perhaps even being able to hack into and influence real spaces from a distance (example — a million person human shield projects in to protect a vulnerable community). While it is fascinating to speculate, when you throw the upcoming rise in AI technologies into the mix it's hard to say where all this is going to lead. At the very least, when new technologies become accessible they will have a transformative impact on the world, much as the Internet has done.

JC: For the future? A eugenic race populated by Musk and Zuckerberg's own selection will run into problems of figuring a new currency that will be valuable on Mars. Planetary warfare between the dying earth from which they harvest disabled or genetically imperfect human babies who arrive as working-age adults to be used as slaves on Mars. Depletion of resources leads to more wars. People become micro-chipped like shelter animals, so they don't need passports, watches, fitbits or cellphones. Sea level rises such that people move onto mountains or drown. Incidences of cancer and diseases arise. We use renewable and sustainable tech too late and it becomes insanely expensive and this determines the have and have-nots. Alternately, a mass extinction or meteor strikes earth, leading to massive dust cloud, and people begin hunting each other like during the Russian famine. Al and animals both plot to eliminate us.

JRC: Those futures are already here. Reality is already augmented. Sea levels and cancer rates have already risen. Depletion of resources is already leading to more wars. The digital economy has already built the infrastructure for a new kind of authoritarianism. When we speak about these futures as if they are far off we run the risk of diminishing the urgency of the decisions we make in the more immediate nexts of hour, week, and year.

I am a migrant. The question "what's next?" fills me with a catatonic dread. I'm trying to get leave to remain in the country I live in. I am trying to use my white privilege to call attention to the precariousness of a political system, which rhetorically and financially exploits migrants even as it undermines our access to a settled life. I'm trying to use migratory art forms to address the enormity of climate change in human terms that we can understand and act upon. I am trying to learn the language of clouds and wind. I'm trying to learn how to propagate trees and shrubs. So far, a quince seems to have taken. LS: I agree the world is already augmented — indeed since we invented and applied our first technology, that would be so. That said, we could be witnessing the very decline of Empire — and with that would come a great opportunity. Whether we take the opportunity or not, it is possible to break this paradigm of conquest and kill, kill and create a new one - one founded on compassion and universal rights, where the land and the water are what we call sacred. We are all working towards this, most serious artists I know are working towards this, and these efforts continue to pour into the collective consciousness. We have to be able to envision this new humane world and know that it is possible. So, this is also a part of what I am exploring — what might that look like, how might we get there? Like J.R., I have concluded that turning to the sky, the water, the garden, is the clear (if not only) place to begin.

Liz Solo

Liz Solo is a performance and media artist, writer, activist and musician. Liz creates media works for the small screen as well as performances that merge the live stage with virtual (online, game) environments. Her performances, videos and online events have been presented online and around the world including at ISEA, Istanbul; FILE Electronic Language International Festival, Sao Paolo: MaMachinima International Machinima Festival, Amsterdam; IOTA Institute, N.S., Canada; The Big Screen Project, Times Square NYC; Festival of New Dance, St. John's. Most recently Liz presented her avatar performance "The Asteroid" at the *7a*11d Performance Art Festival* at Trinity Square Video, and performed her scripted theatre piece "She, Robot" at the Factory Theatre in Toronto as part of Roles 4 Women's Women *From The Future*. The manuscript for her first novel, "Phreak" was shortlisted for the WANL Fresh Fish Award and she's the recipient of a 2018 East Coast Music Award for her achievements in music.

Jennifer Chan

Jennifer Chan is an artist and web developer who makes stuff as social commentary on sex, success, love, equality, suffering and happiness. Her work has been featured in Rhizome, LEAP, Modern Painter, Dazed, Sleek and ARTFORUM. She has had solo exhibitions at Art Gallery of Southwestern Manitoba (Brandon), LTD (Los Angeles), Transmediale (Berlin), ohmydays (Singapore), Future Gallery (Berlin) and Gallery CC (Malmö). She most exhibited installations at NRW-Forum (Dusseldorf), The Nightingale (Chicago), Vtape (Toronto) and Chase Public (Cincinnati). Chan's writing has been published by West Space Journal, Mousse, Junk Jet, Arcadia Missa, dpi, Temporary Art Review, Rhizome, Art F City and «You Are Here: Art After The Internet» edited by Omar Kholeif. Chan grew up in Hong Kong and now lives in Toronto.

J. R. Carpenter

J. R. Carpenter is an artist, writer, researcher, performer, and lecturer working across print and digital media. Her web-based work has been exhibited, published, performed, and presented in journals, galleries, museums, and festivals around the world. She is a two-time winner of the CBC Quebec Writing Competition. Her first novel won the Expozine Alternative Press Award. Her web-based work The Gathering Cloud won the New Media Writing Prize 2016. Her IOTA DATA commissioned work This is a Picture of Wind won the Dot Award for Digital Literature and the Opening Up Digital Fiction Competition People's Choice Award and was shortlisted for The Robert Coover Award for a Work of Electronic Literature. She lives in Plymouth, UK. http://luckysoap.com

ARTISTS

WRITERS

Isabelle Arvers

Isabelle Arvers in an art curator and a machinima specialist in France and worldwide designing machinima programs for festivals and museums since 2007. After conducting more than a hundred workshops in France and worldwide, she directed her first machinima video in 2012, and since then created many videos with video games engines. In 2016, she creates a machinima doc in the Calais Jungle as well as different abstract machinima.

David Clark

David Clark has produced narrative and experimental films, work for the internet, gallery installations, and public art commissions. He has shown at the Canadian Embassy in Berlin, Biennale Nationale de Sculpture Contemporaine, Trois-Rivières, Sundance Film Festival, SIGGRAPH, European Media Arts Festival, Transmediale, 2012 Winter Olympics, and the Museum of Moving Images in New York. He teaches Expanded Media at NSCAD University in Halifax.

Adrienne Crossman

Adrienne Crossman is an artist and curator working and living in Windsor, Ontario. She holds an MFA in Visual Art from the University of Windsor and a BFA in Integrated Media with a Minor in Digital and Media Studies from OCAD University. Crossman creates queer interventions through the manipulation of digital media and popular culture and by locating queer sensibilities in the everyday.

Johanna Drucker

Johanna Drucker is the Breslauer Professor of Bibliographical Studies in the Department of Information Studies at UCLA. She is internationally known for her work in artists' books, the history of graphic design, typography, experimental poetry, fine art, and digital humanities.

IOTA is a creative agency that supports writing, curatorial research, and cross-disciplinary artworks in new media, the web, visual, interactive and performance art. We aim to reach beyond the scope and duration of traditional art exhibitions, to create an environment that fosters research opportunities, multi-sector partnerships including technology, biology, and grass roots movements. www.IOTAinstitute.com

