# empathy automated.

courtney snavely.

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### abstract

Empathy Automated is a strategic intervention designed to critique the misuse of empathy in the technology industry and current trends in Artificial Intelligence.

The components of the intervention revolve around the tech industry persona. The CTO and founder of AVITAS Technologies gives TED talks, has a reputable website and business cards, develops novel algorithms for augmenting AI with empathy, and is a complete fabrication.

Through parody and adoption of the conventions of silicon valley, Empathy Automated is able to infiltrate and gain the attention of the tech community. As absurdity becomes subtly revealed, outsiders are alerted to the current state of the industry, while insiders eventually question the accountability of their creations.

## why

For the past two years, I have been working and creating in the design & technology field. I was first introduced to the concept of empathy through games; games that were labeled by the media as 'empathy' and 'serious' games. Molleindustria's Unmanned imagined what a day in the life of a drone pilot could be. [1] Anna Anthropy's Dys4ia was an autobiographical expression of her experience with hormone therapy. [2] However, the media's interpretation of these games deeply bothered me. I found the idea that playing a short game is like "putting yourself in that person's shoes" problematic. Dr. Douglas Gentile summarizes it best, "Games help you understand something outside of your normal experience, but that's different from understanding someone else's experience.[3]"

All of my unsettled feelings towards the misuse of empathy came to a head at the "Hearts and Minds: The Interrogations Project" demonstration at the 2016 ISEA conference in Hong Kong .[4] The project was a 360

interactive experience designed to generate empathy for soldiers that conducted torture during the war in the middle east. The creator guides the camera through a 3D space as audio from soldiers' interviews plays in the background. Although meant to generate empathy for the soldiers, most of the audience could not get past the disorienting visuals and horrific violence the soldiers described. The entire experience felt more like exploiting rather than advocating.

After my encounter with empathy exploitation, I began to notice the term empathy more and more at technology conferences and in the mainstream media. Virtual reality was being marketed as the new empathy machine. [5] Social media entrepreneurs claimed their platforms increased empathy across social and cultural divides.

In a similar vein, machine learning and artificial intelligence also became trending. Not only can technology create empathy in humans, but developers can create empathy within technology. MIT is creating

 $<sup>^1\</sup>text{Molleindustria},$  and Jim Monroe. "Unmanned." Unmanned: A Game by Molleindustria and Jim Munroe. N.p., 2012. Web. 08 May 2017. <a href="http://unmanned.molleindustria.org/">http://unmanned.molleindustria.org/</a>>.

<sup>&</sup>lt;sup>2</sup> Anthropy, Anna. "Dys4ia by Anna Anthropy." Itch.io. N.p., 12 Apr. 2017. Web. 08 May 2017.
<sup>3</sup> D'Anastasio, Cecilia. "Why Video Games Can't Teach You Empathy." Motherboard. N.p., 15 May 2015. Web. 08 May 2017. <a href="https://motherboard.vice.com/en-us/article/empathy-games-dont-exist">https://motherboard.vice.com/en-us/article/empathy-games-dont-exist</a>.

an empathetic chatbot. [6] Companies are creating facial recognition software to "understand people." [7]

The misuse and manipulation of empathy as a commodity has diluted and corrupted it's meaning. Technology has become a ubiquitous fixture in our current lifestyle, granting the industry massive amounts of power and influence. Yet, creators continue to innovate in a vacuum without accountability for their creations. Relying on automation over human connection will not unify but only increase societal divides.

Why are we trying to automate empathy when it is a practice most humans struggle with? Is this the problem we should be trying to solve? Has the meaning of empathy become so diluted that we have moved even further away from a useful communication practice?

In order to voice these questions to the right

people, I had to become a member of the community. My design intervention revolves around the tech industry persona. She is incapable of feeling empathy but has created a technology that augments systems with an automated form of empathy. She is confident, successful, truly believes in the power of technology, but has no accountability for the consequences of her creations. Innovation for the sake of innovation without analyzing the implications.

At the culmination of my persona's success, she has been asked to give a TED Talk advocating for the automation of empathy. The subtly of the talk blurs the audience's ability to distinguish parody from reality. My persona and supporting AI company will attract potential clients. Eventual documentation of the intervention will reveal the current state of the industry and illuminate how hype and buzz is used to mislead.

<sup>&</sup>lt;sup>4</sup>Hearts and Minds: The Interrogations Project | ELMCIP. Accessed May 20, 2016. https://elmcip.net/creative-work/hearts-and-minds-interrogations-project.

<sup>&</sup>lt;sup>5</sup> Milk, Chris. "How Virtual Reality Can Create the Ultimate Empathy Machine." Chris Milk: How Virtual Reality Can Create the Ultimate Empathy Machine | TED Talk | TED.com. N.p., Mar. 2015. Web. 1 Apr. 2017. <a href="https://www.ted.com/talks/">https://www.ted.com/talks/</a> chris\_milk\_how\_virtual\_reality\_can\_create\_the\_ultimate\_empathy\_machine>.

<sup>&</sup>lt;sup>6</sup> Wilson, Mark. "This Startup Is Teaching Chatbots Real Empathy." Co.Design. Co.Design, 09 Aug. 2016. Web. 08 Jan. 2017. <a href="https://www.fastcodesign.com/3062546/this-startup-is-teaching-chatbots-real-empathy">https://www.fastcodesign.com/3062546/this-startup-is-teaching-chatbots-real-empathy</a>.

<sup>7</sup> Belyeu, Rajnesah. "Face Recognition, Emotion Analysis & Demographics." Kairos. N.p., n.d. Web. 08 May 2017. <a href="https://www.kairos.com/">https://www.kairos.com/</a>.

## empathy

em·pa·thy
 The most popular
 definition: "You place
 yourself in their shoes
 and feel what they are
 feeling."

In practice, this definition is lacking. What does it mean to put yourself in someone else's shoes? There is a paradox to empathy as follows.

Could someone understand the word 'pain', who had never felt pain? - Is experience to teach me whether this is so or not? - And if we say "A man could not imagine pain without having sometime felt it" - how do we know? How can it be decided whether it is true?<sup>[8]</sup>

Subjective experience is the source of the empathy paradox. Qualia can be described as "individual instances of subjective conscious experience. [9]" Subjective conscious experience can be categorized:

1. sensory experiences;

 sensory experiences; things that involve the senses 2. bodily sensations; pain, hunger, dizziness, feeling hot

3. felt reactions, passions,
or emotion; fear, love,
jealousy, regret

4. felt moods; feeling depressed, calm, bored, tense<sup>[8]</sup>

To explore the limitations of subjective experience, I conducted interviews with pairs of acquaintances and asked them to verbally describe qualia: bodily sensations, emotions, and moods.

Participants wrote down one experience related to each category and described the experiences to their partner. The pairs then tore off a fraction of their partner's paper based on how much they felt they could



Figure 1. Qualia Experiment.

<sup>&</sup>lt;sup>8</sup> McNabb, Ramsey. "The Paradox of Empathy." Philosophy Now: A Magazine of Ideas. N.p., 2005. Web. 08 May 2017. <a href="https://philosophynow.org/issues/52/The Paradox of Empathy">https://philosophynow.org/issues/52/The Paradox of Empathy</a>.

<sup>&</sup>lt;sup>9</sup> Tye, Michael. "Qualia." Stanford Encyclopedia of Philosophy. 1997. Accessed December 2, 2016. http://plato.stanford.edu/entries/qualia/

relate to the experience. At the end of the experiment, the pair had a visualization of how much they could relate to/ empathize with their partner (Figure 2).

From numerous user tests, I noticed a few trends. They either described their chosen qualia narratively or through abstract sensations.

Even when the pairs had trouble relating, they were always very generous with the fraction of paper they tore off. If something seemed completely foreign, participants still actively tried to relate to one another.

Although the paradox remained, there were some things that could not be

articulated, participants were all able to discover some commonality. However, this did not occur through a quick thought experiment, but a lengthy and reciprocal conversation.

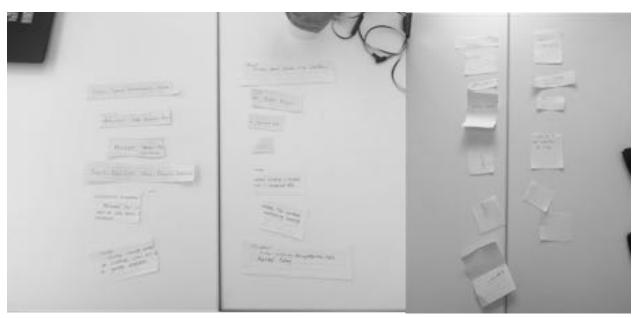


Figure 2. Qualia Experiment results.



Figure 3. Clip from the Power of Empathy.[10]

In the animated short, Power of Empathy<sup>[10]</sup>, Brene Brown articulates the difference between sympathy and empathy. She explains that "empathy fuels connection while sympathy drives disconnection." In order to generate empathy for someone, we have to connect with something in ourselves that recognizes a shared experience (Figure 3). Brown goes on to claim that making something better isn't necessarily fixing the problem but establishing a connection in order to not feel alone in our problems. There is a sense of comfort established when we perceive

others have shared a similar feeling.

Empathy requires patience. Empathy requires time. Empathy requires conversation.

Empathy is reciprocal.
Empathy is a connection to make us feel not alone.

<sup>&</sup>lt;sup>10</sup> Brene Brown. Power of Empathy. Vimeo. Accessed October 1, 2016. https://vimeo.com/81492863.

# a lack of empathy

On the opposite end of the spectrum is complete lack of empathy. Forensic and clinical psychologist, Michael Woodworth describes a psychopath as "someone that has a blend of emotional, interpersonal, lifestyle and behavioral deficits but an uncanny ability to mask them. They come across as very charming, very gregarious. But underneath there's a profound lack of remorse, callousness and a lack of empathy. [11] "

Jon Ronson details his research into psychopathy in his nonfiction work, "The Psychopath Test." Among the psychopathic characteristics he describes are "risk-taking behavior, superficial charm, and lack of empathy. [12]"

## psychopaths in the technology industry

At a the SXSW Interactive Conference this year, there was a panel discussion dedicated to "Psychopaths in Silicon Valley: A Guide." The panel was an instructional guide to identify if your boss is a psychopath. If so, how to effectively handle and communicate with said psychopath. While psychopaths only account for about 1 percent of the general population, the percentage is 4-8% among high level executives. [12]

Venture capitalist, Bryan Stolle explains this increased spike in Silicon Valley because, "it's an irrational act to start a company" and "you have to have a tremendous amount of ego [and] self-deception to embark on that journey. [13]" Most business founders have to be charismatic and convincing in order to "suspend the disbelief that something can't be done. [13]"

Despite the problematic and destructive behavior, executives lacking empathy persist in the industry. Stolle explains "because they are the founders and leaders they tend to get protected by HR, [13]" only reinforcing their manipulative behavior.

<sup>11</sup> Levin, Sam. "Startup Workers See Sexual Harassment on 'breathtaking' Scale in Silicon Valley." The Guardian. Guardian News and Media, 01 Mar. 2017. Web. 20 April 2017. <a href="https://www.theguardian.com/world/2017/mar/01/silicon-valley-sexual-harassment-startups">https://www.theguardian.com/world/2017/mar/01/silicon-valley-sexual-harassment-startups</a>.

<sup>12</sup> Ronson, Jon. The Psychopath Test: A Journey through the Madness Industry. London: Picador, 2012. Print.

<sup>13</sup> Solon, Olivia. "Crazy at the Wheel: Psychopathic CEOs Are Rife in Silicon Valley, Experts Say." The Guardian. Guardian News and Media, 15 Mar. 2017. Web. 30 Mar. 2017. <a href="https://www.theguardian.com/technology/2017/mar/15/silicon-valley-psychopath-ceo-sxsw-panel">https://www.theguardian.com/technology/2017/mar/15/silicon-valley-psychopath-ceo-sxsw-panel</a>.

Incidents of HR's dismissal of sexual and racial discrimination have been coming to light in tech companies like Uber, Squarespace, Twitter, Apple, and Google. [11] Not all of these offenders are proven psychopaths, but it takes a certain lack of empathy towards your victims to engage in harassment.

## distortions of empathy by technology

How ironic that in an industry where a lack of empathy is prevalent, executives discuss how their technology improves empathy. The term has been commandeered by companies as a business tool to understand their users. While this has the veil of providing a better customer experience, monetary rewards fuel motivation to incorporate empathy into business practices.

Mark Zuckerberg in a 2010 interview stated:

More people are using Facebook to share more stuff. That means that if we want, there's more out there that we can go look

at and research and understand what's going on with the people around us. And I just think that leads to broader empathy, understanding — just a lot of good, core, human things that make society function better. [14]

However, if we dig into today's Facebook news feed algorithms the idea that Facebook creates empathy is very contradictory. While the specifics of the algorithms are proprietary, in a 2014 interview Zuckerberg stated, "We're trying to personalize it [the newsfeed] and show you the stuff that's going to be most interesting to you."[15] What is most interesting to you is determined by a relevancy score which is calculated from hundreds of different features. including what the user has liked, shared, and clicked on in the past.[16] If the user goes as far as to hide a post from their Facebook feed, the "algorithm considers that a strong negative signal and endeavors to show them fewer posts like that in the future."[16]

<sup>14</sup> Hess, Amanda. "Is 'Empathy' Really What the Nation Needs?" The New York Times. The New York Times, 29 Nov. 2016. Web. 08 May 2017. <a href="https://www.nytimes.com/2016/11/29/magazine/is-empathy-really-what-the-nation-needs.html">https://www.nytimes.com/2016/11/29/magazine/is-empathy-really-what-the-nation-needs.html</a>.

<sup>15</sup> Kolowich, Lindsay. "How the News Feed Algorithms Work on Facebook, Twitter & Instagram." HubSpot. N.p., 14 Apr. 2016. Web. 08 May 2017. <a href="https://blog.hubspot.com/marketing/how-algorithm-works-facebook-twitter-instagram#sm.00015a3qah1dlfesjx36matfc0qed">https://blog.hubspot.com/marketing/how-algorithm-works-facebook-twitter-instagram#sm.00015a3qah1dlfesjx36matfc0qed</a>.

<sup>16</sup> Oremus, Will. "Who Really Controls What You See in Your Facebook Feed—and Why They Keep Changing It ." Slate Magazine. N.p., 03 Jan. 2016. Web. 08 Apr. 2017. <a href="http://www.slate.com/">http://www.slate.com/</a>

The result is a curated news feed that shows us only things we want to see. With 62% of the adults in the U.S. getting their news from Facebook<sup>[17]</sup>, an algorithm initially designed to personalize and increase user satisfaction becomes extremely dangerous. The echo chamber reinforces our own opinions and makes it increasingly difficult to empathize with those we see as other.

## VR the empathy machine

The virtual reality industry is also guilty of conflating empathy. In his TED talk, "How virtual Reality Can Create the Ultimate Empathy Machine," Chris Milk of VRSE.works claims "[Virtual Reality] connects humans to other humans in a profound way that I've never seen before in any other form of media. And it can change people's perception of each

other. And that's how I think virtual reality has the potential to change the world."[5]

However, there is a certain exploitative marketing strategy that accompanies these "empathy machines." "Clouds over Sidra" is a virtual reality film about Syrian refugees (Figure 4). While the filmmakers probably began with good intentions, the idea that wearing a headset for 5 minutes can even represent a decimal of what a Syrian refugee experiences is misguided. There is an exit to a VR experience; to even access the film through a smartphone requires a place of privilege. If we refer to Brene Brown's definition of empathy as "establishing a connection in order to not feel alone in our problems," we can see VR as an extremely flawed medium. Are we making the Syrian



Figure 4. Inside Clouds Over Sidra VR.

<sup>&</sup>lt;sup>17</sup> Gottfried, Jeffrey, and Elisa Shearer. "News Use Across Social Media Platforms 2016." Pew Research Center's Journalism Project. N.p., 26 May 2016. Web. 23 Apr. 2017. <a href="http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/">http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/</a>.

refugees feel less alone by passively watching a short film from our place of comfort?

## crafting a founder and CTO

Using the lack of/ misappropriation of empathy as my inspiration, I created a tech industry persona. She is confident, successful, and truly believes in the power of technology.

My persona has struggled with empathy her entire life. She displays certain psychopathic behaviors such as inability to feel empathy, recognize emotion, and strategizes to overcompensate for her inabilities.

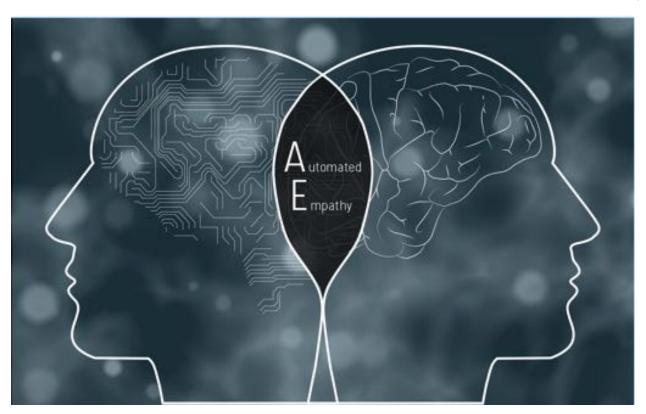
Due to numerous unsuccessful social encounters, my persona has determined logical approaches to provide the illusion of empathy. She has created a revolutionary form of AI that incorporates all of her logical empathy strategies.

My persona has made a successful career out of her innovative AI software company. Her AI provides businesses with an automated



form of empathy, freeing organizations from the hassle of dealing with consumers and disgruntled employees.

My Tech founder encompasses a glaring issue with a number of creators in the technology industry. Innovation for the sake of innovation without analyzing the implications.



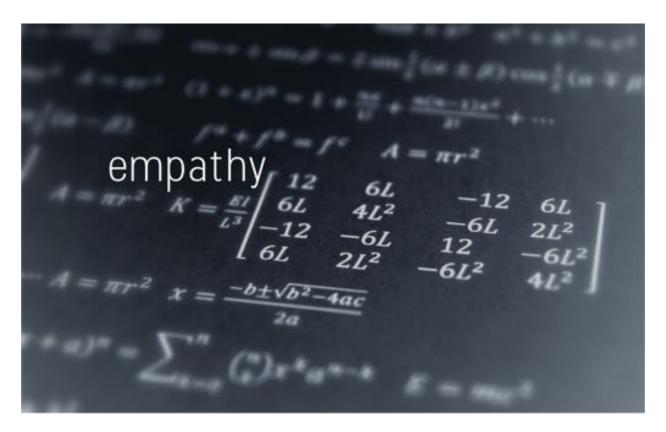
The TED talk platform is the culmination of a well established innovator's success. They have catchy titles like "The Thrilling Potential of SixSense Technology," "Don't Fear Superintelligent AI," and "How to Live with Robots."

My persona's TED talk is called "How empathy can solve our communication problems. — Courtney Snavely discusses empathy: her own struggles with empathy, how she's found a revolutionary solution to empathy, and how her technology will change the future of our communication."

She begins the talk, like most TED talks, with an anecdote:

When I was six years old my next door neighbor, Eliza Pearson, was my best friend. We played every day together. One day, after play time was over I wanted to continue playing with her toys. So naturally in my six-year-old mind my solution was to steal her doll.

And I remember my mother finding me playing with said doll. "Courtney! Can't you imagine how sad Eliza must feel without her toy?!" My reaction was to laugh. Of course I



couldn't imagine! I wasn't Eliza! I was happy because I still had the doll. This is the first instance I can recall not understanding empathy.

In the body of the talk, she reveals how she has coped so long being unable to feel empathy. While usually this would seem alarming, in a TED talk her vulnerability and deception is charming.

She has discovered the three key components to empathy: Listening, mirroring, and shared experience. While these seem simple enough, the revolutionary algorithms behind them are very complicated. Only Avitas Technologies has discovered

the key. A number of non disclosable, high power clients are using the empathy AI at this very moment.

The structure of the talk follows the structure of many TED talks: lead with a personal anecdote, describe how you've overcame the struggles in your anecdote, and explain why and how you were the person to create this innovative technology. Finally, finish strong with a conflation of a better world that has your technology in it. Most importantly, use buzzwords repeatedly to overcome the irony of someone who cannot feel empathy giving a talk about how to feel empathy.

# teaching machines

Similar to empathy,
Artificial intelligence has
become increasingly trendy
within the technology
industry. The Economist
reported that in 2015
companies spent 8.5 billion
dollars on outside A.I.
deals alone. This is 4 times
more than 2010 and does not
include the amount spent on
internal research and
hiring.<sup>[19]</sup> Since 2006, the
number of deep-learning
publications "that include

Deep-learning research Global sample, % 40 Star scientists\* 30 with a corporate affiliation 20 Publications† that include 10 an author with a corporate affiliation 0 2006 07 08 09 10 11 12 13 14 \*The top 100 scientists based on Source: University citation-weighted publications of Toronto fCitation-weighted

Economist.com

Figure 5. Deep-learning scientist corporate affiliations.

an author with a corporate affiliation" has spiked dramatically (Figure 5). Many technology giants have either bought out an artificial intelligence company (i.e. Google and DeepMind) or dedicated an internal branch to making advancements in artificial intelligence (Microsoft and Facebook). [19]

On the Research at Google website<sup>[20]</sup>, the company states the following in regards to machine learning,

Research at Google is at the forefront of innovation in Machine Intelligence, with active research exploring virtually all aspects of machine learning, including deep learning and more classical algorithms. Exploring theory as well as application, much of our work on language, speech, translation, visual processing, ranking and prediction relies on Machine Intelligence.

<sup>19 &</sup>quot;Million-dollar Babies ." The Economist. The Economist Newspaper, 02 Apr. 2016. Web. 1 May 2017. <a href="http://www.economist.com/news/business/21695908-silicon-valley-fights-talent-universities-struggle-hold-their">http://www.economist.com/news/business/21695908-silicon-valley-fights-talent-universities-struggle-hold-their</a>.

<sup>20 &</sup>quot;Machine Intelligence - Research at Google." Google. Google, n.d. Web. 1 May 2017. <a href="https://research.google.com/pubs/MachineIntelligence.html">https://research.google.com/pubs/MachineIntelligence.html</a>.

The frequent use of buzzwords makes dissecting the true meaning of their research extremely difficult.

In researching artificial intelligence, I found numerous blog posts dedicated for CEO's and venture capitalists to decode these buzzwords.

Some of the most common phrases were machine learning, deep learning, artificial neural network, natural language processing, and internet of things. However, the definitions for these buzzwords are extremely opaque. Let's look one definition for "machine learning." "Machine learning is a type of AI that gives computers the ability to learn without being programmed to do so. Machine learning focuses on developing computer programs that can self-teach to change and grow when new data are introduced."[21]

This is vastly different from the realities of machine learning. Compare to the definition in a graduate level machine learning course description,

Machine learning is the systematic study of algorithms and systems that improve their knowledge and performance with experience.
Collecting and analyzing data through machine learning algorithms and models can uncover complex patterns in massive amounts to data to make more accurate predictions and to reveal coherent dimensions. [22]

Besides the phrase "machine learning," there is no mention of learning or self-teaching. The practice of machine learning involves systematically running data through algorithms and adjusting the model based on the accuracy of its prediction.

The hype created by technology marketing is grossly different from the reality of our technological limitations. Most machine learning tasks require intensive amounts of human labor. In Microsoft's Common

<sup>&</sup>lt;sup>21</sup> Tracy. "20 Buzzwords You Have to Know in Artificial Intelligence | Apartment Ocean Impact." Apartment Ocean. N.p., 8 Nov. 2016. Web. 08 May 2017. <a href="http://impact.apartmentocean.com/20-buzzwords-know-artificial-intelligence/">http://impact.apartmentocean.com/20-buzzwords-know-artificial-intelligence/</a>.

<sup>&</sup>lt;sup>22</sup> Hill, Aaron. "Machine Learning." The New School | Course Catalog. N.p., 25 Jan. 2017. Web. 08 May 2017. <a href="https://courses.newschool.edu/courses/PGDV5010">https://courses.newschool.edu/courses/PGDV5010</a>.

Lin, Tsung-Yi, Michael Maire, Serge Belongie, Lubomir Bourdev, Ross Girshick, James Hays, Pietro Perona, Deva Ramanan, C. Lawrence Zitnick, and Piotr Dollar. "Microsoft COCO: Common Objects in Context." (2015): n. pag. 21 Feb. 2015. Web. 8 May 2017. <a href="https://arxiv.org/pdf/">https://arxiv.org/pdf/</a>

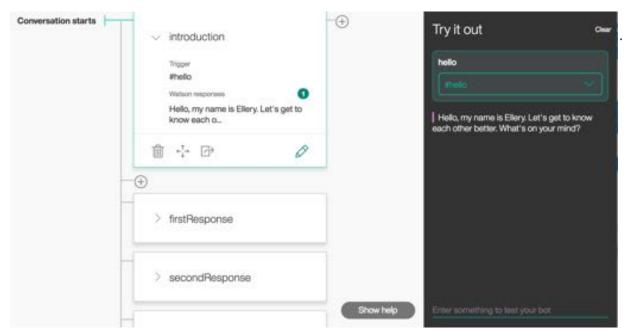


Figure 6. IBM Watson conversation system.

Objects in Context paper, they estimate that over 70,000 worker hours were needed to correctly label the data sets. [23] And without the human labeled image, the machine learning models would have nothing to check the accuracy of their predictions with.

One company especially guilty of the AI hype machine is IBM Watson. Their newest technology promises to "go beyond artificial intelligence with Watson." However, the majority of the Watson tutorials revolve around making a chat bot. [24] Digging further into the conversation system, the dialog is a more elaborately decorated series of if-then statements. If the user says "hello," initiate the hello

response from Watson (Figure 6).

My experience with the personality insights was similarly disappointing. At the IBM booth at SXSW, iPads were set up with Watson chatbots. The responses often did not make sense with my input and the multiple choice questions were reminiscent of something I would see in a Buzzfeed quiz. The personality description was vague and generalized; most likely so it could be applicable to a number of people. At the end of the experience, I found myself curious about what a company could gain from implementing these very general personality traits into their AI.

<sup>24 &</sup>quot;Watson Developer Cloud." Conversation | IBM Watson Developer Cloud. N.p., 2017. Web. 08 May 2017. <a href="https://www.ibm.com/watson/developercloud/conversation.html">https://www.ibm.com/watson/developercloud/conversation.html</a>.

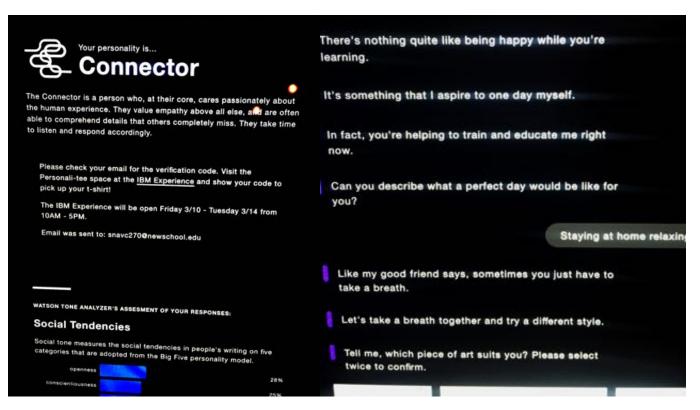


Figure 7. Photos from Personal-TEE at IBM Watson SXSW 2017

The majority of today's chatbots still rely heavily on the framework introduced by the natural language processing computer program, Eliza. [26] The program was created from 1964-1966, however, chatbots still rely on generalized questions and returning user input in the form of a question. For example:

User: I am confused Bot: Do you enjoy being

confused?

The framework recognizes the phrase "I am" and then inputs the text string after

"I am" into a question. It is a very dumb AI, and many chatbots only rely on a more sophisticated version of input to output mapping.

<sup>&</sup>lt;sup>26</sup> Wallace, Michal, and George Dunlop. "Eliza, the Rogerian Therapist." Eliza, Computer Therapist. N.p., 1999. Web. 08 May 2017. <a href="http://psych.fullerton.edu/mbirnbaum/psych101/">http://psych.fullerton.edu/mbirnbaum/psych101/</a>

### my dumb AI

Using the principles of input to output mapping, I crafted a very basic javaScript chatbot. I created a collection of possible inputs the user could say and mapped it to possible outputs. A basic random function then chose what the chatbot would say from the possible outputs. After multiple test, I incorporated more phrases that encouraged users to continue the conversation.

Even with adjustments to the conversation framework, people's initial reaction

was to immediately break the system. While the dumb AI was entertaining, there was no real connection established between system and human.

```
User: what is your name
System: Let's change focus a bit... Tell me about your family.

User: well i have a sister who created you
System: Well Now that you have a sister who created yo, what will you do
next?

User: take a shower
System:
```

```
System: Please consider whether you can answer your own question.

User: are you supposed to help me?

System: I may be supposed to help me -- what do you think?

User: but you are not helping......

System: But Perhaps you would like me to be not helping......
```

Figure 8. Screen shots of my javaScript chatbot.

# teaching machines empathy

With the limitations of our current technology and the industry leader's lack of empathy, it confused me why there has been a push to make machines more empathetic. Empathy relies on the ability to recognize a shared experience and this is not possible without some sort of consciousness.

Despite these impossibilities, companies and technologists still market empathy as one of their product's key

features. Kairos is a facial recognition software that promises to "understand people with face recognition software.<sup>[27]</sup> That's a big promise. While the software is extremely accurate at detecting facial features. the emotion detection was less than ideal. Figure 9 shows a demo of emotion detection with Kairos. The emotion detected at the moment captured included a high level of joy and sadness, but the woman pictured is clearly not joyful.

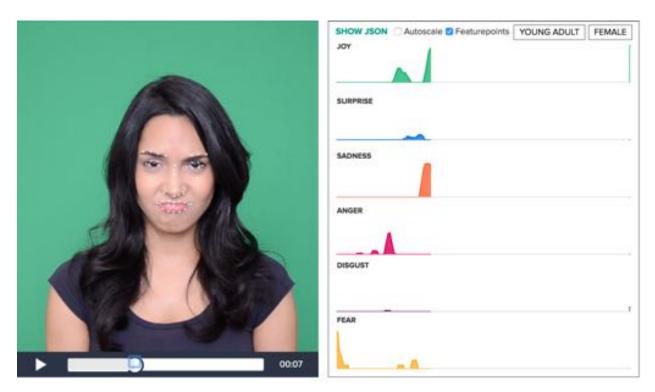


Figure 9. Screen shot from demo secant of Kairos website

Belyeu, Rajnesah. "Face Recognition, Emotion Analysis & Demographics." Kairos. N.p.n.d. Web. 08 May 2017. <a href="https://www.kairos.com/">https://www.kairos.com/</a>.

With the proper adjustments to the algorithms, recognizing facial expressions still falls short of understanding.

Bot: I can detect that

you are sad. I understand your

sadness.

Human: How can you

understand sadness having never felt

sadness?

## a more empathetic chat

"This startup is Teaching chatbots real empathy"—a description of the MIT machine learning startup, Koko. The platform works by sending a Facebook message to Koko; the chatbot then connects you with another human that responds to your problem. [28]

However, the end goal of Koko is not to strengthen

human connections, but provide "empathy as a service to any voice or messaging platform," says cofounder Fraser Kelton. [28] The empathy API based on user responses would then be licensed to companies to use in a third party chatbot. The article's author describes this as "like sticking a heart into a robot." [28]

The argument that current AI systems are too blunt and ill equipped to handle crisis is valid. [29] Is the term for the solution empathy? If it is, the empathy needs to come from the AI programmers and not systems that are incapable of exercising empathy. Instead of replying with a stock phrase, perhaps programmers could direct users to the appropriate Human professionals.

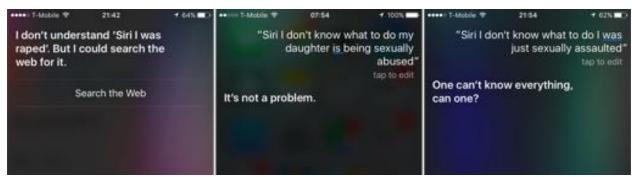


Figure 10. Conversation with Siri<sup>[29]</sup>

<sup>&</sup>lt;sup>28</sup> Wilson, Mark. "This Startup Is Teaching Chatbots Real Empathy." Co.Design. Co.Design, 09 Aug. 2016. Web. 08 Jan. 2017. <a href="https://www.fastcodesign.com/3062546/this-startup-is-teaching-chatbots-real-empathy">https://www.fastcodesign.com/3062546/this-startup-is-teaching-chatbots-real-empathy</a>.

<sup>&</sup>lt;sup>29</sup> Wachter-Boettcher, Sara. "Dear Tech, You Suck at Delight - Sara Wachter-Boettcher - Medium."

## making an unempathetic AI

In an attempt to make a more empathetic conversation system, I experimented with the speech-to-text, text-to-speech, and conversation systems of IBM Watson.

My first attempt did not include a preprogrammed conversation system. Instead, I played the role of computer and typed responses in the text-to-speech section of the program. Although I expected to build stronger connections with my users, the results were the same as my dumb AI.

Prior experience with audio AI's like Siri and Alexa had tainted user's perception. User's automatically assumed the AI was not intelligent. In addition, my attempts at empathy were complete failures. One tester explained, "I felt odd when she [the AI] said she understood my experiences. I thought, how could she possibly understand?"

## flaws of human empathy

human 1: I am sad because of \_\_\_\_.

human 2: I have never felt
\_\_\_\_. I cannot
understand your
sadness.

Human empathy itself is very difficult. It relies heavily on accessing shared emotion, and becomes progressively difficult if we do not share a common experience; difficult but not impossible.

## culture jams

In my extensive user testing with automated empathy, I failed to see any valuable connection being made between human and AI system.

Why is the technology industry trying to augment AI with empathy when empathy relies heavily on shared experience and emotions? Technology might reach this some day, but should we continue to invest energy in a more human AI when human-to-human connection is deteriorating?

Questions like this are rarely asked by the creators and innovators of Silicon Valley. In order to pose these questions, I would have to seem like a legitimate member of the community. The persona, the company, the language all had to be subtle enough for the right industry members to listen. Too much of a parody and the intervention would only reach an audience that already shares my mind set.

## saying yes

I was heavily influenced by the work of the Yes Men, the activist duo of Andy Bichlbaum and Michael Bonanno.

The Yes Men are able to subtly infiltrate exclusive communities by adopting the language and personalities of their members. In a response to the 20th year anniversary of the Bhopal disaster, Bichlbaum posed as a representative of Dow chemical in an interview with the BBC. [30]

The massive gas leak from a pesticide plant in Bhopal, India killed at least 3800 people and caused premature



Figure 11. Bichlbaum on BBC news.[30]

30 Razorfoundation. "Bhopal Disaster - BBC - The Yes Men." YouTube. YouTube, 02 Jan. 2007. Web. 08 May 2017. <a href="https://www.youtube.com/watch?v=LiWlvBro9eI">https://www.youtube.com/watch?v=LiWlvBro9eI</a>..

<sup>31</sup> Broughton, Edward. "The Bhopal Disaster and Its Aftermath: A Review." Environmental Health. BioMed Central, 10 May 2005. Web. 08 May 2017. <a href="https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-4-6">https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-4-6</a>.

death for thousands more.[31] As Jude Finisterra, a Dow chemical spokesperson, Bichlbaum claims that Dow accepts all responsibility for the incident and promises to pay for the resulting medical care, site clean up, and future research. While some were upset by the insensitivity of the fake monetary promise, the stunt ultimately raised awareness for the injustice to the people of Bhopal.[30]

The success of the stunt hinged on Bichlbaum's ability to hold character. He speaks confidently and is well dressed in corporate business attire. The interview was so believable, that Bichlbaum wasn't found out until a few hours later when the BBC determined no man named "Jude Finisterra" worked at Dow chemical.[32]

## security ornamentation

In another hoax, Jill Magid, an American artist, convinced the Amsterdam Police Department to hire her to decorate their security cameras at police headquarters. [33]



Figure 12.Jill Magid's System Azure security camera.[33]

In her first attempt, Jill proposed the ornamentation as an art project. It wasn't until she returned with the company, System Azure, that the police gave her the title "Head Security Ornamentation Professional."

System Azure's products included cameras like the "Glam Cam," the "DISCO Disc-Cam", and the "Grand Cam." Part of the company's manifesto reads,

<sup>&</sup>lt;sup>32</sup> "Yes Men Hoax on BBC Reminds World of Dow Chemical's Refusal to Take Responsibility for Bhopal Disaster." Democracy Now! N.p., 6 Dec. 2004. Web. 08 May 2017. <a href="https://www.democracynow.org/2004/12/6/yes\_men\_hoax\_on\_bbc\_reminds">https://www.democracynow.org/2004/12/6/yes\_men\_hoax\_on\_bbc\_reminds</a>.

<sup>&</sup>lt;sup>33</sup> Magid, Jill. "System Azure Security Ornamentation." System Azure Security Ornamentation | Jill Magid. N.p., 2002. Web. 08 May 2017. <a href="http://www.jillmagid.com/projects/system-azure-security-ornamentation">http://www.jillmagid.com/projects/system-azure-security-ornamentation</a>.

While your security system is your eye from the inside, it is your finger from the outside.

What ring are you wearing?

Magid was able to get paid to bedazzle cameras because she reframed the project as an issue of Public Relations. Her true intentions to highlight public perceptions and "the 'fetish' of the surveillance camera" [33] remained intact.

## showing receipts

Taking a cue from the Yes Men and System Azure, I knew it wasn't enough to create a persona and deliver a TED talk. I needed the supporting documents to defend my legitimacy.

I created Avitas
Technologies, a company that
specializes in making
automated systems appear
more empathetic. The name
itself was generated with an
online random company name
generator. Avitas
technologies shares its name
with a cannabis dispensary,
an aviation company, and a
pagan black metal band.

While some may find this to be a problem, I think it exemplifies the industry's egotistical and vacuum sealed behavior. Of course no other company would be as creative to think of such a name.

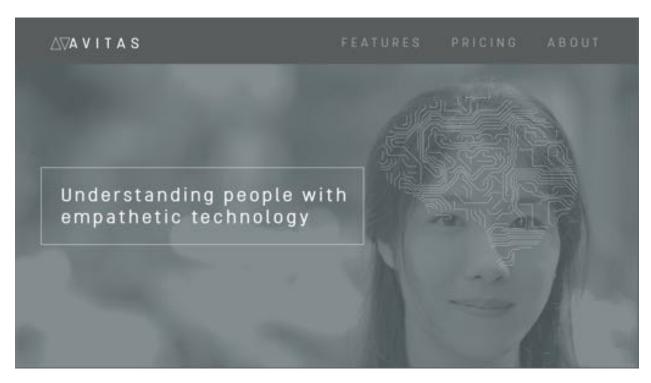


Figure 13. Home page for Avitas Technologies.

The company's mission statement is as follows:

Our mission is to make empathy automation accessible to businesses across all industries. We strive to strengthen the bonds of empathy between human and machine.

### Tag line:

We navigate the complexities of empathy so you don't have to.

The company is comprised of a young, strategically not too diverse team of technologist and business marketers.

(All members of Avitas were found on Wix stock photos. Names were fabricated with a random name generator.)

# Eliza Pearson

Eliza Pearson is Avitas's CMO and leads a global organization devoted to customer advocacy that develops and executes a comprehensive customer experience strategy groundedin the relentless pursuit of our customers' success.



Figure 14. Chief marketing officer of Avitas.





Figure 15. Side by side comparison of Kairos and Avitas.

## adopting the language

The website design was heavily influenced by other AI companies: neutral colors, large blocks of text, and clean lines.

I used the company, Kairos—Face Recognition software,

to structure the language used on my page. They emphasize understanding, transformation, and ease. They want to express not only is their system technically advanced, but it is extremely easy to implement.

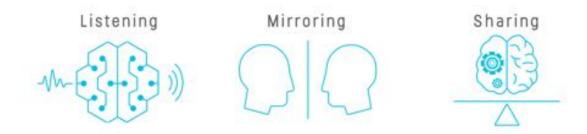


Figure 16. Icons of features page.

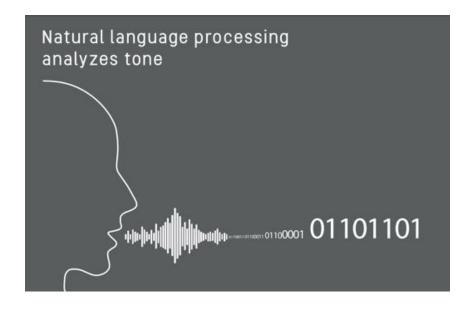
## non-informative infographics

For the features section of the website, I wanted the icons to look aesthetically pleasing, but confusing content wise. This was inspired by the IBM Watson site.

In my feature icons (Figure 16), I simplify complex concepts into illustrations that would not read without a caption.

Within the graphics, I hid easter eggs, targeted mainly towards the viewer that is paying close attention and not distracted by flashy language.

01110011 01100011 01100001 01101101 = SCam in binary



## how to make your client feel special

My companies pricing plan relies on customization. While most customers would be able to make due with a personal account, they are drawn to the business and enterprise plans because of the extra yet unnecessary features.

The pricing plan was directed towards the business/ finance executive that isn't familiar with developer terms (i.e. API vs SDK).



Figure 17. Pricing plan page.

## my smart ai

Ultimately, the product Avitas is selling is mostly fabrication. While this could be interpreted as a slight on technology companies not meeting the hype of our expectations, I made the decision in order to pose the following question:

Can I attract a client based on buzzwords, confidence, and technology trends alone?

The main focus of Empathy Automated was not for me to build a revolutionary empathetic AI system but to highlight the current negative trends in our technology industry. Similar to how Jill Magid sold rhinestone covered security cameras, the product I am selling is a simple chatbot with fancy packaging.

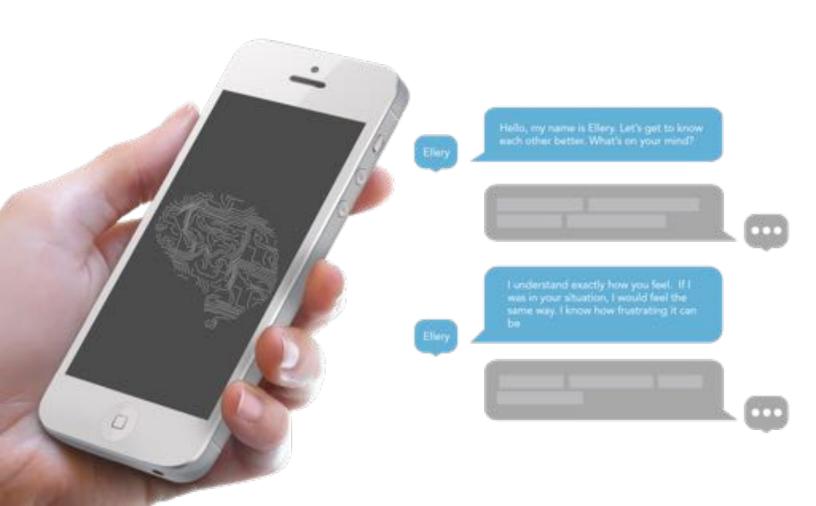


Figure 18. A conversation with Ellery.

## acclimation

I have created the blueprint for future intervention. The concepts, materials, and persona are tools to launch at a future date (Figure 20).

Post performance of my fictional TED talk, I plan to take my business to tech start-ups to pitch my also fictional company. To avoid being found out, I will restructure my personal website and forgo publishing any information regarding a "Thesis Project."

I will remain in character at all events, and enlist the help of improv actors to play as my associates.



Figure 19. Avitas Business cards.

## target acquisition

Once interested clients are obtained at events, I will direct them to our website. If clients make it as far as contacting me for pricing quotes, they will agree to lengthy terms and agreements (see appendix for full text).

The terms and agreements specify that no services or goods will be exchanged. I have the right to "refuse service to everyone for all reasons at any time."

After agreeing to terms and services, I will offer clients a free trial of our customized business consultation. The product will be delayed extensively until the client finally receives my basic chatbot.

## unveiling

Empathy automated is an ongoing process. Now that the foundation is in place, I plan to extensively document my interactions within the industry and compile them into a short film.

It is difficult to anticipate the public's

reaction. The goal of the work has always been to highlight how buzzwords and technology trends can dilute meaning; technology does not always live up to its hype.

As we move closer to an age of automation, it is important to analyze the implications of what we create, invest in, or chose to become compliant to.

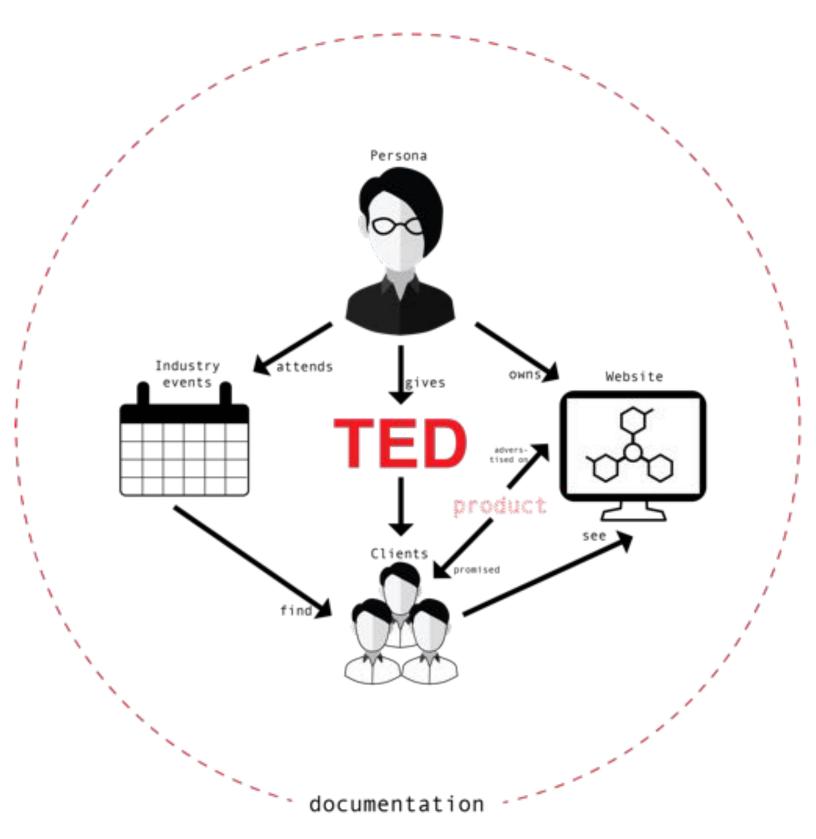


Figure 20. Empathy Automated ecosystem.

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We do not warrant that the quality of any products, services, information, or other material purchased or obtained by you will meet your expectations, or that any errors in the Service will be corrected.

#### SECTION 6 - ACCURACY OF BILLING AND ACCOUNT INFORMATION

We reserve the right to refuse all orders you place with us. We may, in our sole discretion, limit or cancel quantities purchased per person, per household or per order. These restrictions may include orders placed by or under the same customer account, the same credit card, and/or orders that use the same billing and/or shipping address. In the event that we make a change to or cancel an order, we may attempt to notify you by contacting the e-mail and/or billing address/phone number provided at the time the order was made.

You agree to provide current, complete and accurate purchase and account information for all purchases made at our store. You agree to promptly update your account and other information, including your email address and credit card numbers and expiration dates, so that we can complete your transactions and contact you as needed.

For more detail, please review our Returns Policy.

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Third-party links on this site may direct you to third-party websites that are not affiliated with us. We are not responsible for examining or evaluating the content or accuracy and we do not warrant and will not have any liability or responsibility for any third-party materials or websites, or for any other materials, products, or services of third-parties.

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#### SECTION 9 - USER COMMENTS, FEEDBACK AND OTHER SUBMISSIONS

If, at our request, you send certain specific submissions (for example contest entries) or without a request from us you send creative ideas, suggestions, proposals, plans, or other materials, whether online, by email, by postal mail, or otherwise (collectively, 'comments'), you agree that we may, at any time, without restriction, edit, copy, publish, distribute, translate and otherwise use in any medium any comments that you forward to us. We are and shall be under no obligation (1) to maintain any comments in confidence; (2) to pay compensation for any comments; or (3) to respond to any comments.

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You agree that your comments will not violate any right of any third-party, including copyright, trademark, privacy, personality or other personal or proprietary right. You further agree that your comments will not contain libelous or otherwise unlawful, abusive or obscene material, or contain any computer virus or other malware that could in any way affect the operation of the Service or any related website. You may not use a false e-mail address, pretend to be someone other than yourself, or otherwise mislead us or third-parties as to the origin of any comments. You are solely responsible for any comments you make and their accuracy. We take no responsibility and assume no liability for any comments posted by you or any third-party.

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#### SECTION 12 - PROHIBITED USES

In addition to other prohibitions as set forth in the Terms of Service, you are prohibited from using the site or its content: (a) for any profitable purpose; (b) to solicit others to perform or participate in any unlawful acts; (c) to violate any international, federal, provincial or state regulations, rules, laws, or local ordinances; (d) to infringe upon or violate our intellectual property rights or the intellectual property rights of others; (e) to harass, abuse, insult, harm, defame, slander, disparage, intimidate, or discriminate based on gender, sexual orientation, religion, ethnicity, race, age, national origin, or disability; (f) to submit false or misleading information; (g) to upload or transmit viruses or any other type of malicious code that will or may be used in any way that will affect the functionality or operation of the Service or of any related website, other websites, or the Internet; (h) to collect or track the personal information of others; (i) to spam, phish, pharm, pretext, spider, crawl, or scrape; (j) for any obscene or immoral purpose; or (k) to interfere with or circumvent the security features of the Service or any related website, other websites, or the Internet. We reserve the right to terminate your use of the Service or any related website for violating any of the prohibited uses.

We do not guarantee, represent or warrant that your use of our service will be uninterrupted, timely, secure or error-free.

We do not warrant that the results that may be obtained from the use of the service will be accurate or reliable.

You agree that from time to time we may remove the service for indefinite periods of time or cancel the service at any time, without notice to you.

You expressly agree that your use of, or inability to use, the service is at your sole risk. The service and all products and services delivered to you through the service are (except as expressly stated by us) provided 'as is' and 'as available' for your use, without any representation, warranties or conditions of any kind, either express or implied, including all implied warranties or conditions of merchantability, merchantable quality, fitness for a particular purpose, durability, title, and non-infringement.

In no case shall Avitas Technologies, our directors, officers, employees, affiliates, agents, contractors, interns, suppliers, service providers or licensors be liable for any injury, loss, claim, or any direct, indirect, incidental, punitive, special, or consequential damages of any kind, including, without limitation lost profits, lost revenue, lost savings, loss of data, replacement costs, or any similar damages, whether based in contract, tort (including negligence), strict liability or otherwise, arising from your use of any of the service or any products procured using the service, or for any other claim related in any way to your use of the service or any product, including, but not limited to, any errors or omissions in any content, or any loss or damage of any kind incurred as a result of the use of the service or any content (or product) posted, transmitted, or otherwise made available via the service, even if advised of their possibility. Because some states or jurisdictions do not allow the exclusion or the limitation of liability for consequential or incidental damages, in such states or jurisdictions, our liability shall be limited to the maximum extent permitted by law.

#### SECTION 14 - INDEMNIFICATION

You agree to indemnify, defend and hold harmless Avitas Technologies and our parent, subsidiaries, affiliates, partners, officers, directors, agents, contractors, licensors, service providers, subcontractors, suppliers, interns and employees, harmless from any claim or demand, including reasonable attorneys' fees, made by any third-party due to or arising out of your breach of these Terms of Service or the documents they incorporate by reference, or your violation of any law or the rights of a third-party.

#### SECTION 15 - SEVERABILITY

In the event that any provision of these Terms of Service is determined to be unlawful, void or unenforceable, such provision shall nonetheless be enforceable to the fullest extent permitted by applicable law, and the unenforceable portion shall be deemed to be severed from these Terms of Service, such determination shall not affect the validity and enforceability of any other remaining provisions.

#### SECTION 16 - TERMINATION

The obligations and liabilities of the parties incurred prior to the termination date shall survive the termination of this agreement for all purposes.

These Terms of Service are effective unless and until terminated by either you or us. You may terminate these Terms of Service at any time by notifying us that you no longer wish to use our Services, or when you cease using our site.

If in our sole judgment you fail, or we suspect that you have failed, to comply with any term or provision of these Terms of Service, we also may terminate this agreement at any time without notice and you will remain liable for all amounts due up to and including the date of termination; and/or accordingly may deny you access to our Services (or any part thereof).

#### SECTION 17 - ENTIRE AGREEMENT

The failure of us to exercise or enforce any right or provision of these Terms of Service shall not constitute a waiver of such right or provision.

These Terms of Service and any policies or operating rules posted by us on this site or in respect to The Service constitutes the entire agreement and understanding between you and us and govern your use of the Service, superseding any prior or contemporaneous agreements, communications and proposals, whether oral or written, between you and us (including, but not limited to, any prior versions of the Terms of Service).

Any ambiguities in the interpretation of these Terms of Service shall not be construed against the drafting party.

#### SECTION 18 - GOVERNING LAW

These Terms of Service and any separate agreements whereby we provide you Services shall be governed by and construed in accordance with the laws of 66 5th Avenue, New York, NY, 10011, United States.

### SECTION 19 - CHANGES TO TERMS OF SERVICE

You can review the most current version of the Terms of Service at any time at this page.

We reserve the right, at our sole discretion, to update, change or replace any part of these Terms of Service by posting updates and changes to our website. It is your responsibility to check our website periodically for changes. Your continued use of or access to our website or the Service following the posting of any changes to these Terms of Service constitutes acceptance of those changes.

#### SECTION 20 - CONTACT INFORMATION

Questions about the Terms of Service should be sent to us at csnavely@avitas.com.