A virus called Ika-tako and other (digital) cute aggressions

Ana Matilde Sousa
asousa@campus.ul.pt
Universidade de Lisboa,
Faculdade de Belas-Artes,
Centro de Investigação
e de Estudos em Belas-Artes
(CIEBA), Largo da Academia
Nacional de Belas-Artes,
1249-058, Lisboa, Portugal

This article investigates the relationship of computer viruses with the concept of "cute aggression" and its tentacular ramifications, taking as a springboard the Ika-tako virus: a malware created in 2010 by a Japanese NEET called Masato Nakatsuji, which replaced data files with amateurish drawings of cartoony octopuses and squids. Dividing the analysis into three sections that address issues of its production, content, and reception, and connecting the Ika-taku virus to a set of further transgeographical and transhistorical examples, I seek to demonstrate how these instances of cute aggression push the boundaries of playfulness, spontaneity, and naivety, threading into a territory where cuteness, race, sexuality, and cybercrime conflate.

224

l. Introduction

In August of 2010, media all over the world, from online technology news websites like *PC World* and *The Wired* to television shows like *The Colbert Report*,[1] covered the news of a Japanese computer virus that replaced data files with cartoony octopuses, squids, and sea urchins. The Ika-tako virus (イカタコウイルス), translating to English as "Squid-octopus" (in Japanese, *ika*, イカ, means "squid" and tako, タコ, means"octopus"), was uploaded to the Internet by an unemployed 27-year-old man called Masato Nakatsuji, infecting somewhere between 20000 and 50000 computers worldwide. The malware, disguised as a music file, lurked in the depths of Winny, a Japanese P2P file-sharing program for Windows. When executed, it worked through the affected hard disks, sending their files to a central server set up by Nakatsuji and replacing them with homemade drawings of marine invertebrates. [Figure 1] Eventually, Nakatsuji was arrested and sentenced by the Tokyo District Court to two years and six months in prison on charges of property destruction.

Fig. 1. Screengrab of a computer infected with the Ika-tako virus.
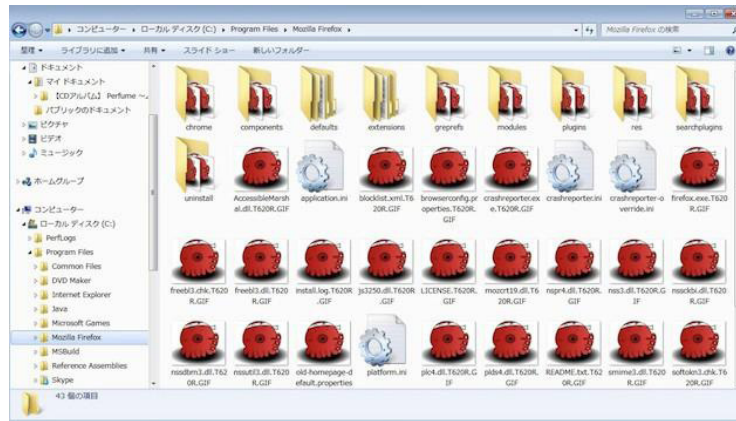
Nakatsuji's drawings resembled the "loose" aesthetics of Japanese *yuru-kyara* ("relaxed characters"). *Yuru-kyara* are unsophisticated mascots whose wobbly, awkward looks make them all the more lovable (Occhi 2012, 113; Suter 2016, 777). [Figure 2] Icons of Japanese *kawaii* ("cute") culture, such as Hello Kitty, are meant to have an enjoyable, even healing effect on observers (Occhi 2012, 111, 113); but unlike Hello Kitty and other polished corporate commodities, the *yuru-kyara*'s primary function is to "convey a strong message of love for one's hometown" (Suter 2016, 777), promoting tourism to increase a region's revenue. Even though they are driven by economic goals, to general audiences, *yuru-kyara* come off as noncommercial characters, more earnest and flawed than the slick products of well-oiled profit machines like Sanrio (Hello Kitty's motherhouse). The unassuming quality of Nakatsuji's amateurish drawings, too, is *yurui,* meaning "loose," "wobbly," "slack," or "relaxed." The most circulated Ika-tako virus mascot in the media was a bubble-shaped orange octopus with chubby

tentacles and a round mouth. This character appeared in several variations: giving a friendly wave, comically angry, or wearing an afro. Other figures by Nakatsuji included a spirited white squid, a lazy-looking whelk, a sleeping sea urchin, a drooling jellyfish, and a bowtie- wearing starfish. Also, surprisingly, a mole, the only mammal in the group—an animal that lurks underground instead of underwater, but a lurker nonetheless. [Figure 3] The dissonance at play here is that, although Nakatsuji's characters look *yurui*, they are destructive rather than healing, like any form of digital pollution, prompting the Ika-tako virus to vacillate between cuteness and aggression, friendliness and antagonism.

Fig. 2. Funassyi is a popular *yuru-kyara*. It represents the city of Funabashi, in Chiba.

Fig. 3. Ika-tako virus characters by Nakatsuji Masato.

This article takes the Ika-tako virus as an aesthetic and poetic launching pad for a wider discussion on the relationship of computer viruses with the concept of "cute aggression" and its tentacular ramifications. Cute aggression, here, is understood not only in its stricter sense as "aggressive impulses caused by an excess of cute affect" (Dale 2016, 40) but, more broadly, as the simultaneous combination of lovability and aggression in a single entity. Typical examples of cute aggression are expressions of affection such as "it's so cute I could crush it" (Stavropoulos and Alba 2018) or "it's so cute I want to die" (Dale 2016, 40), used when faced with, for example, a baby or a puppy; these phrases eloquently illustrate the point that, as Cute Studies scholar Joshua Dale notes, an "encounter with cuteness seems fraught with the possibility of violence" (Dale 2016, 40). Therefore, though one could argue that cuteness and aggression are

intrinsically linked at their core, cute aggression has also become a recurrent trope in pop-cultural artefacts, with well-known examples in the West such as the animated web series *Happy Tree Friends*, but especially in connection with Japanese manga, anime, and *kawaii* cultures. The popularity of styles like *yami-kawaii* ("sick-cute"), *buso-kawaii* ("ugly-cute") or *guro-kawaii* ("gore-cute"), that inspired internationally acclaimed music idols like Kyary Pamyu Pamyu, is one of the most visible manifestations of this phenomenon. [Figures 4 & 5] At the same time, and given how ubiquitous cuteness has become in Internet culture over the past couple of decades, it's relevant to understand how the various facets of digital society have been shaped by this growth, specifically, when things get a little chaotic, like with trolls or malware, both of which can be considered as forms of digital pollution. I will leave the former—e.g., right-wing trolls with Twitter icons showing cute anime girls—for a future occasion. For now, the Ika-tako virus can serve as an interesting starting point for thinking about the latter.

Fig. 4. A popular character from the *yami-kawaii* manga series *Wrist-Cut Transformation Subculture ⓐ Menhera* (more commonly known as Menhera-chan) by Ezaki Bisuko.

Fig. 5. Examples of yami and *guro-kawaii* visuals by Japanese musical idol Kyary Pamyu Pamyu.

Two aspects of the Ika-tako virus stand out in this context. To begin with, it speaks of the real damage that cute objects and subjects *can inflict upon us*, since Nakatsuji's *yurui* characters are active participants in their creator's cybercrime, and their actions are what bring them into the realm of aggression (by themselves, the cartoony sea animals are "just" cute). As a result, it is different from looking at an illustration drawn in a *yami-kawaii* style, that may depict cute aggressions but does not *do* anything harmful to the viewer. In addition, since the literal reference to octopuses and squids is embedded within one's experience of the Ika-tako virus, it is ideally suited for a *tentacular* analysis of the imaginative universes that unfold from it—a mode of thought reminiscent of philosopher Donna Haraway's "tentacular thinking"(Haraway 2016), with all its twists, turns, detours, and knots. In fact, as I have argued elsewhere, as "a dumb aesthetic" (Legge 2016, 142), "cuteness resists, even repels, the seriousness expected from art and the academia" and "No matter how much thought one puts into analysing cute things, there remains an impression of an academic hoax" (Sousa 2020, 48), approaching it from the point of view of aesthetics invites us into more speculative and entangled territory so as to accommodate it. The Ika-tako virus, therefore, serves both as a case study of cute aggression in and of itself and a magnet for the connections one can establish with several other pieces of media, past and present, whose aesthetic and poetic valences touch on similar themes, like tentacles reaching out in different directions.

In the following sections, I will address issues related to, firstly, the contents and reception of the Ika- tako virus, especially concerning the link between tentacles and cute aggression in pop culture, Japanese animation, and comics, and how this often carries sexualized and racialized undertones. Secondly, how these cute aggressions find resonances in the association between the idea of the "naughty child" and the behaviors and social condition of its creator, Masato Nakatsuji, as representative of a type of man linked to otaku and NEET cultures and encapsulating ideas of disruptive immaturity in the context of Japanese society. And thirdly,

I will discuss how the connection of the "naughty child" and their cute aggressions to malware, far from being fortuitous, has roots in the latter's very genesis, such as in the historical Cookie Monster virus, and the relationship of the Ika-tako virus to others that evoke a certain "age of innocence" of playful computer viruses, like the more recent Rensenware.

2. Ika-tako and beyond
2.1 Tentacular (cute) aggressions

The media responses to the Ika-tako virus demonstrate the ease with which these slip into negative and racialized realms beyond the scope of a simple piece of malware. For instance, in *The Colbert Report*,[1] the popular American host Steven Colbert remarked that the Ika-tako virus was surprising because "believe it or not, these Japanese squid drawings are not pornographic" (Hoskinson 2010). Another blogger proclaimed that "Cthulhu attacks Japan's file-sharers," stating that the "Ikatako virus... replaces files with pictures of the great squid-god, Cthulhu" and labelling it a "Tentacle Attack" ("Cthulhu Attacks Japan's File-Sharers" 2010). The fact that, in the western collective imagination, mentions of "squid" and "Japanese" evoke extravagant tentacle erotica and Lovecraftian monstrosity is also observable in an (in)famous short sketch of the American adult animated sitcom, *Family Guy*.[2] [Figure 6] After Stewie corrects Brian that *tai chi* is originally from China, not Japan, he adds that "the Japanese have a whole other thing going on." In typical *Family Guy* fashion, the scene cuts abruptly to a Tokyo street where two Japanese men stand talking to each other. The following scene takes place:

> Japanese guy 1: Hey, you wanna see a movie?
>
> Japanese guy 2: Nah we're Japanese, let's go watch a schoolgirl bang an octopus! Both: [While high fiving] Yeah!
> [An anime octopus slides onto the screen]
>
> Octopus: Oide dakishimete ageruyo, suction cup feel goooood!
>
> [An anime schoolgirl slides onto the screen while the octopus goes after her] Schoolgirl: [high-pitched] Hiiiiiiiiii!
> Octopus: Hmmmm Ha ha haayy..."

2. *Family Guy* is an American animated sitcom created by Seth MacFarlane for the Fox television network. It has been the target of copious criticism and controversy due to its dark humor, sexual themes, and racial jokes.

3. *Shunga* is a form of erotic art from Japan. Most *shunga* were color woodblock prints (*ukiyo-e*) featuring nudity and explicit sexual content. Hokusai's *The Dream of the Fisherman's Wife* (1814) is one of the most famous *shunga* (Stanska 2017).

This sketch exploits the racial stereotype of Japanese men as sexual deviants with bizarre fetishes. Nevertheless, the fact that the production team chose to shift its usual animation and art style in order to accommodate the anime octopus and schoolgirl is highly suggestive. While the octopus talks and moves around, his body is still with the exception of the jerky movements of his mouth and tentacles. In turn, the schoolgirl, a generic female character that is reminiscent of Sailor Moon, is entirely static, sliding across the screen rather than walking. The perversion of this scene is emphasized by the octopus's appearance as a gigantic, energetic purple cephalopod with plump tentacles, large sparkling eyes, and a coy :3-shaped smiley face, closer to a friendly Superflat mascot than to Hokusai's famous *shunga*[3] octopus (although this one, as is typical of this style of Japanese print, also reflects a playful and humorous approach to sexuality). In this way, the sketch parodies what is perceived as markers of "Japaneseness" in anime: on the one hand, its limited animation (Lamarre 2009, 316), i.e., the technique of "moving drawings" instead of "drawing movements" (Lamarre 2002), that often characterizes anime on a formal level; and, on the other, its perverted cuteness, in which the aesthetics of *kawaii* function as an ambivalent symbol of innocence and deviancy. Indeed, the general leniency of Japanese comics and animation towards sexually suggestive contents has raised many eyebrows, both internationally and domestically, sometimes derived from clashes between the different media environments in which these works circulate (McCurry 2014). For instance, in Japan, the popular kids' TV show *Crayon Shin-chan* actually ran in comics magazines targeted at a "young adult" demographic, before being adapted into an animated series aimed at children and broadcast at the same time slot as other more innocuous (or, at least, more canonically family-friendly and free from eruptions of scatology and sexual innuendo) shows, like *Doraemon* (da_chicken 2021). As such, *Shin-chan* "has delighted Japanese children, and infuriated their parents, for more than two decades" (McCurry 2014; Pera 2017) and continues to raise complaints and restrictions in countries like Portugal and Indonesia—despite the heavy glocalization that the series is subject to in the West, that significantly softens its "unpalatable" contents (da_chicken 2021).

The connection between monstrous tentacles and cuteness is not limited to stereotypical Western views on anime, as one also finds it in Japanese shows, usually played for comedic effect. An example of this is the popular manga series *Shinryaku! Ika Musume* ("Invade! Squid Girl") by Anbe Masahiro, whose protagonist is an adorable anthropomorphized girl with hair shaped like blue tentacles. [Figure 7] Although *Ika Musume* is a slice of life comedy with an environmental message—the Squid Girl seeks revenge on humankind for polluting the ocean—the series is no stranger to tentacle rape (in Japanese, *shokushu goukan*) allusions, both in the show and in the works of fans. For instance, the entry for "Squid Girl" in the satirical website *Encyclopedia Dramatica* features various pornographic illustrations of Squid Girl assaulting other female characters with her tentacles. [Figure 8] The fear that octopuses and squids, no matter how cute they appear on the surface, will turn sexually aggressive, speaks to a lineage of tentacle erotica in *ero-manga* and anime pornography (commonly known as "*hentai*" in the West) arguably initiated in 1814 by Hokusai Katsushika's famous erotic woodblock print *Tako to Ama* ("Octopuses and shell diver," known as *The Dream of the Fisherman's Wife*). [Figure 9]

Fig. 7. Manga series *Shinryaku! Ika Musume.*

Fig. 8. Image macro parody of Shinryaku! Ika Musume cute heroine threatening to sexually assault the victim with her tentacles.

U GONNA GET TENTACLE RAPED

As scholar Laura Ettenfield points out, in the West, octopus-like monsters also have a history of association with unrestrained, primitive female sexuality, as is the case of Victor Hugo's novel *Les Travailleurs de la Mer* (*Toilers of the Sea*, 1866) (Ettenfield 2018, 78). Nevertheless, because of how pervasive tentacle erotica is in Japanese comics and animation, the Ika-tako virus would be a completely different and arguably less interesting object had Nakatsuji used photographs or realistic drawings of tentacled creatures. Of course, it would still align with the broader oceanic terror, or thalassophobia, widespread in literary and popular culture—which has its most well-known representatives in Jules Verne's giant octopuses in *Vingt mille lieues sous les mers* (*Twenty Thousand Leagues Under the Sea*, 1870) and H. P. Lovecraft's tentacled abomination, Cthulhu—but the perverse connotations to Japanese animation would be lost. The same applies to the *Family Guy* sketch, whose pervertedness would be decreased had the show's standard art and animation been used to depict a "real" octopus and woman. The characters' cuteness is thus at the heart of the heightened sense of violation at play, whether it is sexual, in the case of *Family Guy*, or otherwise invasive, in the case of the Ika-tako virus, that penetrates computers to destroy data.

2.2 Naughty children

In the case of the Ika-tako virus, the cute mascots are goofy and relaxed, giving off an impression of blissful innocence, as if unaware of the nefarious consequences of their actions. They are like naughty children, whose behavior, however disruptive, is, or should be, according to common perceptions about the naughtiness of children, fundamentally benevolent. Indeed, Nakatsuji, the creator of the Ika-tako virus, channels this "naughty child" image himself. A graduate student from the Osaka Electro-Communication University, many news reports stressed that Nakatsuji was an unemployed techie in his late twenties, like the stereotypical otaku[4] or NEET (the acronym for Not in Education, Employment, or Training) "parasite

4. Otaku is the Japanese subculture roughly equivalent to the Western "geek" or "nerd" and is now a word included in most English language dictionaries, as it has entered the common vocabulary, particularly on the Internet, to mean an obsessive fan of Japanese comics, animation and video games.

5. A "parasite single" is an adult who chooses to stay at their parents' house indefinitely and typically live at their expense, without marrying or making any other attempts to become independent. It is a phenomenon that has become particularly evident in developed countries in America, Europe, and Japan.

6. "Cool Japan" is the name of a series of government-sponsored policies and advertising campaigns, started in the early 2000s in Japan, that aim to increase the country's "soft power" by exploiting the popularity of domestic pop culture among foreign youth, in particular, manga, anime, video games, music, and *kawaii* culture.

7. As Japanese popular culture becomes an increasingly global phenomenon, the moral panics triggered by such events are also more likely to spread. Take, for instance, a recent incident involving a young student planning an attack on a Portuguese university, who was flagged and prevented in time by the police from carrying it out (Henriques, Oliveira, and Silva 2020). In the sensationalist media, detailed reconstructions of the student's room were shown featuring anime figurines, collages with manga panels, and plushies from popular series like *Pokémon*, stating that he was a fan of cartoons from Japan, and with psychologists on TV claiming that the memorabilia and the plushies were markers of immaturity.

singles,"[5] perceived to be socially or intellectually immature by Japanese society at large. Indeed, despite Cool Japan campaigns to rehabilitate the image of the otaku in the eyes of the general public,[6] they remain to this day the epitome of Japan's postmodern afflictions (Vincent 2010), as "failed men" (Galbraith 2015, 27) who embody the breakdown of discipline, work ethic, and other heteropatriarchal principles. Moreover, in the collective memory of the Japanese, the otaku are linked to horrific events like Miyazaki Tsutomu's brutal child killings in the late 1980s—he was dubbed the "otaku murderer" by the media for being a fan of anime, manga, and slasher horror movies—or the more recent Kyoto Animation arson attack in 2019, that represent the darker consequences of alienation through fantasy.[7] Like artist Murakami Takashi's "little boy" (Murakami 2005) theory, the otaku as a lost/infantilized man symbolizes the "displacement of progressive social and political ideals and involvement, and withdrawal into the selfish and conformist middle-class domesticity and material comfort of privatized family life" (Yoda 2006, 246). As Nakatsuji's actions seem to demonstrate, this regressive movement breeds its own streak of pent-up resentment and frustration, eventually manifesting in antisocial behaviors and destructive actions against the social and technological structures of post-industrial society.

Significantly, the Ika-tako virus incident was not the first time Nakatsuji was arrested for a cybercrime. In 2008, he had been detained in relation to coding and distributing the Harada virus, then one of Japan's "Big Three" viruses (Kageyama 2008), named after an acquaintance of Nakatsuji's called Harada ("Japanese Police Arrest Inventor of Computer Virus" 2008). [Figure 10] Nakatsuji also distributed a Harada subspecies that replaced data with stills from the cult anime series *Clannad*, showing the heroine walking amidst falling cherry blossoms (Geere 2010). [Figure 11] Other subspecies of the Harada virus used *moé*[8] characters from shows like *Haruhi Suzumiya*, *Lucky Star*, and *Kanon*. In addition, the pictures were captioned with digitally superimposed phrases admonishing the users of Winny for their illegal file-sharing activities ("Kyou Is a Virus …" 2010). [Figure 12] Such a controversy was brewing in Japan at the time, as Winny's developer Kaneko Isamu was fined and arrested in 2004 for encouraging users to copy and distribute movies, games, and other contents illegally (although the Osaka High Court overturned the decision and acquitted him in 2009) (*The Japan Times Online* 2013). During his own trial, Nakatsuji argued that "If movies and animated films are illegally downloaded, TV networks will stop showing these programs in the future." And added: "My hobby is to watch recorded TV programs, so I was trying to stop that" ("Japanese P2P Virus Writer Convicted, Escapes Jail" 2008). Ironically, because back when Nakatsuji was detained, Japan lacked laws against malware creation and distribution, he was sentenced to two years in prison and a three-year suspended sentence for the copyright infringement of *Clannad*, as well as for defaming a fellow student (presumably, Harada) (Loo 2008).

8. *Moé* is a slang word originating from the otaku subculture that has a complex and polyphonic meaning. In terms of character design trends in Japanese comics, animation, and video games, the aesthetic of *moé* is characterized by a preference for cute, round characters evoking the image of a "little sister".

Fig. 10. Screengrab of the Harada Virus.

Fig. 11. Example of a picture used in the Clannad Virus, featuring the main heroine Furukawa Nagisa.

Fig. 12. Notice regarding another form of Harada virus, featuring the character Hiiragi Kagami from the anime and manga series *Lucky Star.*

Nakatsuji's justifications for his actions, namely, his statement that he was trying to save the Japanese culture industry from piracy by creating and distributing a computer virus, grant him the aura of a "naughty child" with his heart in the right place but questionable means. In the same vein, Nakatsuji told the police that he did not think that he would be arrested for the Ika-tako virus, as he had created the squid and octopus drawings himself (Geere 2010) and, as such, had not violated any copyrights, as opposed to what had happened upon his first arrest. When questioned about the Ika-tako virus, Nakatsuji also claimed that "I wanted to see how much my computer programming skills had improved since the last time I was arrested" (Geere 2010). These declarations align Nakatsuji with what Sharon Kinsella calls the "little rebellion" (Kinsella 1996, 243) of Japanese cuteness instead of the more conscious and aggressive stances that often characterize Western countercultures. Although

Nakatsuji's words are not openly confrontational, they make a mockery out of petty copyright laws and the absurd fact that he had been arrested for violating intellectual property instead of his actual cybercrime. Indeed, Japan's bill against cybercrime was only approved and revised in 2011, one year after Nakatsuji was sentenced, this time around, for property damage caused by the Ika-tako virus— another workaround used by the Japanese authorities to punish malware developers in the absence of specific laws (Someya 2011). Likewise, Nakatsuji's drive to do his best in malware creation jabs at Japan's culture of *ganbaru* ("perseverance," "doing one's best"), whose ubiquitousness rivals that of the *kawaii*, and that many Japanese consider oppressive (Jones 2015).

2.3 Playful malware

All in all, the Ika-tako virus could be said to have a nostalgic quality, resembling "the cute computer viruses of the past" (McCormick 2016). As Rich McCormick puts it in an article for *The Verge*, there was an earlier, more earnest period in computer history when flashy malware set out to destroy a computer, pure and simple, instead of mining for credit card information and other exploitable data (McCormick 2016). The Malware Museum, for instance, offers an online archive of these computer viruses from the 1980s and 1990s that operated in MS-DOS; the viruses have been neutralized, removing their harmful code and leaving only the colorful, playful visuals that can be downloaded by the Museum's visitors. Some of these old viruses, like "Mars Land," appeal to the poetic beauty of the medium, showing a digital landscape of red dunes with the tagline "coding a virus can be creative." [Figure 13] Others take a more straightforward approach, like "one piece of nefarious code that simply displays the word 'ha!' in flickering ASCII characters" (McCormick 2016). [Figure 14] The Ika-tako virus may be less spiteful in tone, but its mixture of destructiveness and playfulness is certainly not inferior to these older viruses—quite the contrary.

Fig. 13. GIF animation of the malware "Mars Landscape 2by Spanska, from the Malware Museum.

Fig. 14. "Ha" malware, from the Malware Museum.
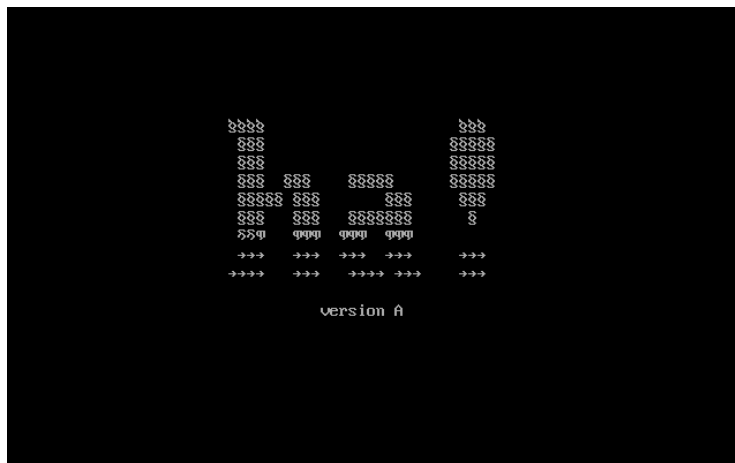
While computer viruses and cuteness may seem like an odd pairing, their history interlocks from their onset. The Cookie Monster program from MIT Multics, often credited as the world's first computer virus, "was named after a recurring "Cookie Bear" sketch on the American variety TV series *The Andy Williams Show*, in which a guy in a comical bear costume tries all sorts of mischievous and amusing tricks to get a cookie from the show's protagonist (who would yell at the bear "No cookies! Not now, not EVER!!!" and slam the door in frustration), serving as an inspiration for the annoying behavior of the program (Tavares 1995). The original program was a harmless prank codded by an IBM computer operator at Brown University in the late 1960s, who manually activated it to tease unsuspecting students (Tavares 1995). In 1970, an MIT freshman, Seth Stein, created an automated version of the Cookie Monster that "spread from its birthplace... to practically every Multics site in the world" (Tavares 1995), including the Pentagon— even though, unlike later viruses, the Cookie Monster did not replicate itself, thus having to be transferred manually from site to site via magnetic tape (Tavares 1995). The Cookie Monster ran in the background, occasionally blocking the computer to display a message requesting a cookie. After a few minutes, if no action took place, it flashed the message "I didn't want a cookie anyway" and disappeared (Fitzpatrick 2008).

If users typed in the word "cookie," the Cookie Monster flashed "thank you" and went to sleep, unblocking the computer (Fitzpatrick 2008). [Figure 15] Rumors have it that writing the word "Oreo" would remove the virus entirely (Posey 2000). In popular culture, the program came to be associated with the Cookie Monster from *Sesame Street* (who only debuted in 1969, after the creation of the virus), mostly because of the 1995 film *Hackers*, which included a fictitious rendition of the Cookie Monster virus featuring the famous muppet. [Figure 16]

Fig. 15. Demonstration of Cookie Monster-like virus on YouTube (https://youtu.be/8PoU-mT-EBs).
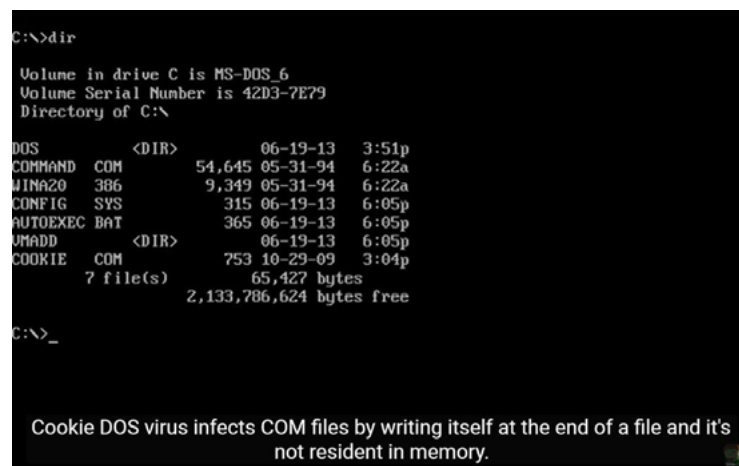
Cookie DOS virus infects COM files by writing itself at the end of a file and it's not resident in memory.

Fig. 16. Cookie Monster scene from the film *Hackers*, directed by Iain Softley (Hollywood, CA: United Artists), 1995 (https://youtu.be/UkGhuXTasQc).

9. "Ransomware," a portmanteau of "ramson" and "malware," is malicious software "used to mount extortion- based attacks that cause loss of access to information, loss of confidentiality, and information leakage" (Young and Moti Yung 1996, 159).

10. Bullet hell" is a subgenre of vertically-scrolling shoot' em up videogames from the early 1990s, where players must dodge an overwhelming number (hundreds or thousands) of bullet-like projectiles, arranged in intricate patterns ("Bullet Hell" 2018).

The playful nature of the Cookie Monster virus highlights how cuteness's phenomeno-poetics are tied to the idea that, as historian Gary Cross puts it, "the cute can steal cookies from the cookie jar but do it without real malice or greed" (Cross 2004, 44). Ironically, this naughty but innocuous child, the Cookie Monster, opened Pandora's box of malware, as similar programs began to be used to steal passwords from computer users (Wentworth 1996). More recently, a malware called Rensenware took the "cuteness" of Cookie Monster-like viruses to new, sadistic extents. Instead of asking for bitcoins like ransomware usually does,[9] Rensenware demanded that victims play *Touhou Seirensen~ Undefined Fantastic Object* (2009), the twelfth instalment of the cult series of Japanese "bullet hell"[10] shooter videogames, *Touhou Project*. *Touhou Project* (東方 Project) is a *dōjin* (self-published) game by the one-

person Japanese game developer Ōta Jun'ya, under the pseudonym ZUN, whose first instalment, *Highly Responsive to Prayers,* was released in 1996 for NEC's PC-9801. The series, featuring cute graphics and music in anime style, revolves around a shrine maiden who fights *yōkai* (a Japanese folkloric monster) while dodging waves of projectiles covering the entire screen. When Rensenware is activated, a pop- up window appears showing a picture of the character Murasa Minamitsu—a boss from *Undefined Fantastic Object* who is a female spirit in a sailor suit—requiring that victims not only beat the game but do so in maximum difficulty ("Lunatic") and reaching 200 million points. [Figure 17] The task is virtually impossible, as even the perfect playthroughs available online, displaying incredible levels of gaming skill, fail to get the 200 million mark. [Figure 18] Thus, while, at first glance, Rensenware was kind enough to grant its victims a chance to regain control over their computers, they were in for an incredibly frustrating ride. Gone are the days when "cookies" and "Oreos" were enough to appease an annoying but mostly harmless program.

Fig. 17. Rensenware malware pop-up window featuring the character Murasa Minamitsu from the videogame *Touhou Project.*

Video 18. Perfect playthrough of level 6 of *Touhou Seirensen~ Undefined Fantastic Object* (2009) in Lunatic difficulty (https://youtu.be/-A6w_ cqPGow).

Rensenware, as it turned out, was also the work of a prankster. According to *Kotaku*, its creator was a Korean undergraduate student who wrote Rensenware as a joke because he was bored (D'Anastasio 2017). He fell asleep after uploading Rensenware to GitHub (an online software development platform for computer code), realizing the following day that it had spread. After that, he uploaded an "antidote" software accompanied by an apology to those affected by the virus (D'Anastasio 2017). "I made it for [a] joke," he wrote. "And just laughing with people who like Tōhō Project Series" (D'Anastasio 2017). Like the Cookie Monster, the cuteness of the Ika-tako and Rensenware viruses, resulting in both cases from their use of manga and anime visuals, reflects the nature of their creators as "naughty children" who wreak havoc out of boredom or earnest, if misplaced, intentions.

3. Closing remarks

This article finds itself at the intersection of the "emerging field" (Dale 2016a) of Cute Studies and the study of digital culture, examining the relationship between computer viruses and "cute aggression" and its ramifications. Cute aggression is a phenomenon in which cuteness and related categories, like the feminine, the infantile, and the playful, combine with the aesthetics or poetics of aggression to create a particular type of experience. In order to address the latter, I used the Ika-tako computer virus, developed by a Japanese man named Masato Nakatsuji, as a springboard for a tentacular analysis within which I draw upon other media objects that have meaningful relationships with it, both in terms of content and form. As I have argued, the Ika-tako is particularly suited to serve as such a catalyst, for several reasons. First, it is a piece of malware that incorporates the aesthetic of Japanese "relaxed mascots" (*yuru-kyara*) into its design, but also hints at a certain tradition of mistrust for tentacled creatures present in both literature and popular culture. Second, it offers a poetic connection to tentacularity through its direct reference to octopuses and squids. "Tentacular thinking" (Haraway 2016) has all to do with cute aesthetics and evading linear thought by taking a messier approach, achieved, here, through a patchwork of transhistorical and transgeographic examples that move away from and towards the "central" case study in centrifugal and centripetal movements.

Each of the three sections in this article—"Tentacular (cute) aggressions", "Naughty children," and "Playful malware"—contributes to a deeper understanding of how seemingly small objects and microphenomena, like a computer virus featuring cute drawings of octopuses and squids, can push the boundaries of playfulness, spontaneity, and naivety. The examples discussed range from Hokusai's *Tako to Ama* to the historical computer virus Cookie Monster, from the American cartoon series *Family Guy* to the intricacies of the slice-of-life

universes of Japanese *kawaii* and *moé* cultures. A recurring theme in all of these sections is the idea of the prank or, one might say, "acting cute" as a form of subversion, whether openly antagonistic or not. The first section highlighted its more sexual undertones, while in sections 2 and 3, I have demonstrated that such "cuteness" may not be as unimportant for malware in general as one might expect. On the contrary, not only is the historical emergence of computer viruses rooted in a cute prank (the Cookie Monsters virus), but the creators of viruses such as Ika-tako and Rensenware, which are explicitly associated with the aesthetics of *kawaii* and anime, seem to evoke a childlike attitude. In Nakatsuji's case, one could describe it as the impertinence of a man infantilized by society (a NEET and an otaku), who "acts cute" in the face of piracy, copyright laws, and the Japanese national culture of "doing one's best."

In general, we can draw another conclusion from this discussion. The computer viruses that display cute aggression, such as the Cookie Monster, Ika-tako, and Rensenware viruses, are more than just curiosities; they provide valuable insights into the "weird materialities" (Parikka 2012, 96) of today's cute-obsessed culture. Leading figures in critical theory and aesthetics, such as Sianne Ngai, have asserted that cuteness has become an index of the "surprisingly wide spectrum of feelings, ranging from tenderness to aggression, that we harbour towards ostensibly subordinate and unthreatening commodities" (Ngai 2012, 1). Moreover, the fact that this traditionally undervalued aesthetic category has risen to a position of massive influence owes much to the Internet, which has led to the cute becoming a "dominant aesthetic category in digital culture" (Wittkower 2012), rivalling the popularity of pornography and fake news. Even though the Ika-tako virus and other examples cited in this article are quite limited in time and space, the use of tentacular thinking to approach them indicates that their scope is much broader, threading into a territory where cuteness, race, sexuality, and cybercrime conflate. These entanglements may be counterintuitive, but they are surprisingly widespread, affecting how humans relate to technological artifacts and navigate the digital landscape of the 21st century.

References

"Bullet Hell."
2018. *TV Tropes*. September 28, 2018. https://tvtropes.org/pmwiki/pmwiki.php/Main/BulletHell

Cross, Gary.
2004. *The Cute and the Cool: Wondrous Innocence and Modern American Children's Culture*. Oxford ; New York: Oxford University Press.

"Cthulhu Attacks Japan's File-Sharers."
2010. *News.3Yen.Com*. August 22, 2010. news.3yen.com/2010-08-22/cthulhu-attacks-japans-file-sharers/

da_chicken.
2021. "Shin-Chan Is Absolutely Not Aimed at Kids. The Manga Was a Seinen, or Young Adult..." *Hacker News*. https://news.ycombinator.com/item?id=27990597

Dale, Joshua Paul.
2016a. "Cute Studies: An Emerging Field." April 1, 2016. https://doi.org/info:doi/10.1386/eapc.2.1.5_2

_____.
2016b. "The Appeal of the Cute Object: Desire, Domestication, and Agency." In *The Aesthetics and Affects of Cuteness*, edited by Joshua Paul Dale, Joyce Goggin, Julia Leyda, Anthony P. McIntyre, and Diane Negra, 35–55. New York: Routledge.

D'Anastasio, Cecilia.
2017. "Anime Malware Locks Your Files Unless You Play A Game." *Kotaku*. April 7, 2017. https://kotaku.com/anime-malware-locks-your-files-unless-you-play-a-game-1794120750

Ettenfield, Laura.
2018. "The Octopussy: Exploring Representations of Female Sexuality in Victor Hugo's The Toilers of the Sea (1866) and The Laughing Man (1868)." In *Beasts of the Deep: Sea Creatures and Popular Culture*, edited by Jon Hackett and Seán Harrington, 78–93. Indiana University Press. https://doi.org/10.2307/j.ctt20krz85

Fitzpatrick, Laura.
2008. "The Biggest Pranks in Geek History." *Time*, September 8, 2008. http://content.time.com/time/specials/packages/article/0,28804,1839579_1839578_1839 526,00.html

Galbraith, Patrick W.
2015. "'Otaku' Research' and Anxiety About Failed Men." In *Debating Otaku in Contemporary Japan: Historical Perspectives and New Horizons*, edited by Patrick W. Galbraith, Thiam Huat Kam, and Björn-Ole Kamm, 1–34. London ; New York: Bloomsbury Academic.

Geere, Duncan.
2010. "Japanese Virus Replaces Files with Pictures of Squid." Japanese virus. *WIRED UK*. August 16, 2010. http://www.wired.co.uk/article/japanese-virus

Haraway, Donna.
2016. "Tentacular Thinking: Anthropocene, Capitalocene, Chthulucene." *E-Flux Journal*, no. 75 (September). http://www.e-flux.com/journal/75/67125/tentacular-thinking-anthropocene-capitalocene-chthulucene/

Henriques, Ana, Mariana Oliveira, and Samuel Silva.
2020. "Estudante planearia há meses 'acção terrorista' contra colegas da Universidade de Lisboa." *PÚBLICO*, February 10, 2020, online edition. https://www.publico.pt/2022/02/10/sociedade/noticia/pj-impede-atentado- dirigido-estudantes-universidade-lisboa-1995059

Hoskinson, Jim.
2010. "The Colbert Report." TV show. United States: Comedy Central.

"Japanese P2P Virus Writer Convicted, Escapes Jail."
2008. *Government Technology*. May 16, 2008. http://www.govtech.com/security/Japanese-P2P-Virus-Writer-Convicted-Escapes-Jail.html

"Japanese Police Arrest Inventor of Computer Virus."
2008. *Scoop News*. February 1, 2008. http://www.scoop.co.nz/stories/WL0802/S01351/cablegate-japanese-police-arrest- inventor-of-computer-virus.html

Jones, Colin P. A.
2015. "Too Much 'Ganbaru' Could Push Anyone over the Edge." *The Japan Times Online*, June 8, 2015. http://www.japantimes.co.jp/life/2015/06/08/language/much-push- anyone-edge/

Kageyama, Yuri.
2008. "Japanese Police Arrest Alleged Spammer." *Msnbc.Com*. January 25, 2008. http://www.nbcnews.com/id/22841443/ns/technology_and_science-security/t/japanese- police-arrest-alleged-spammer/

Kinsella, Sharon.
1996. "Cuties in Japan." In *Women, Media, and Consumption in Japan*, edited by Lise Skov and Brian Moeran, 220–54. Honolulu: University of Hawaii Press.

"Kyou Is a Virus ..."
2010. こねこね倶楽部. May 8, 2010. http://minkara.carview.co.jp/userid/362842/blog/19150873/

Lamarre, Thomas.
2002. "From Animation to Anime : Drawing Movements and Moving Drawings." *Japan Forum* 14 (2): 329–67. https://doi.org/10.1080/09555800220136400

_____.
2009. *The Anime Machine: A Media Theory of Animation*. Minneapolis: University of Minnesota Press.

Legge, Elizabeth.
2016. "When Awe Turns to Awww... Jeff Koon's Balloon Dog and the Cute Sublime." In *The Aesthetics and Affects of Cuteness*, edited by Joshua Paul Dale, Joyce Goggin, Julia Leyda, Anthony P. McIntyre, and Diane Negra, 130–50. New York: Routledge.

Loo, Egan.
2008. "Clannad Malware Creator Gets Two Years in Prison." *Anime News Network*. May 16, 2008. http://www.animenewsnetwork.com/news/2008-05-16/clannad-malware-creator- gets-two-years-in-prison

McCormick, Rich.
2016. "The Malware Museum Shows the Cute Computer Viruses of the Past." *The Verge*. February 8, 2016. http://www.theverge.com/2016/2/8/10935080/malware- museum-computer-virus-internet-archive

McCurry, Justin.
2014. "Japanese Children's Cartoon Crayon Shin-Chan Branded Pornography." *The Guardian*, September 24, 2014. http://www.theguardian.com/world/2014/sep/24/japanese-children-cartoon-crayon-shin-chan-pornography-indonesia

Murakami, Takashi.
2005. *Little Boy: The Art of Japan's Exploding Subculture*. New York; New Haven: Japan Society, Inc. / Yale University Press.

Ngai, Sianne.
2012. *Our Aesthetic Categories: Zany, Cute, Interesting*. London; Cambridge, Mass.: Harvard University Press.

Occhi, Debra.
2012. "Wobbly Aesthetics, Performance, and Message: Comparing Japanese Kyara with Their Anthropomorphic Forebears." *Asian Ethnology* 71 (1): 109–32.

Parikka, Jussi.
2012. "New Materialism as Media Theory: Medianatures and Dirty Matter." *Communication and Critical/Cultural Studies* 9 (1): 95–100. https://doi.org/10.1080/14791420.2011.626252

Pera, Goreti.
2017. "Série 'Shin Chan' só pode ser emitida após as 22h30. Assim delibera a ERC." *Notícias ao Minuto*. May 16, 2017. https://www.noticiasaominuto.com/n/794993/?&utm_medium=social&utm_source=facebo ok.com&utm_campaign=buffer&utm_content=geral

Posey, Talainia.
2000. "When Viruses Attack." *TechRepublic*. February 25, 2000. https://www.techrepublic.com/article/when-viruses-attack/?tag=content%3Bsiu-container

Someya, Masayoshi.
2011. "Japan Outlaws Creating Malware." *TrendLabs Security Intelligence Blog*. June 22, 2011. https://blog.trendmicro.com/trendlabs-security-intelligence/japan-outlaws-creating-malware/

Sousa, Ana Matilde.
2020. "Cutencyclopedia: A Theoretical - Practical Investigation on the Kawaii as an Aesthetic Category in Art and Pop Culture." Lisboa: Faculdade de Belas-Artes da Universidade de Lisboa. https://repositorio.ul.pt/handle/10451/45935

Stanska, Zuzanna.
2017. "All You Must Know About Japanese Erotic Art, Shunga (18+)." *DailyArtMagazine*. February 16, 2017. http://www.dailyartmagazine.com/must-know- japanese-erotic-art-shunga/

Stavropoulos, Katherine K. M., and Laura A. Alba.
2018. "'It's so Cute I Could Crush It!': Understanding Neural Mechanisms of Cute Aggression." *Frontiers in Behavioral Neuroscience* 12 (December): 300. https://doi.org/10.3389/fnbeh.2018.00300

Suter, Jillian Rae.
2016. "Who Is Hikonyan? The Phenomenon of Japanese Yuru-Chara." *Sociology Study* 6 (12). https://doi.org/10.17265/2159-5526/2016.12.004

Tavares, Christopher.
1995. "Origin of the Cookie Monster." *Multics*. March 13, 1995. http://www.multicians.org/cookie.html

The Japan Times Online.
2013. "Winny Developer Kaneko Dies at 42," July 8, 2013. https://www.japantimes.co.jp/news/2013/07/08/national/winny-developer-kaneko-dies- at-42/

Vincent, J. Keith.
2010. "The Genealogy of Japanese Immaturity." In *Nihon-teki sozoryoku no mirai: Kuru japonorojii no kanosei [The Future of the Japanese Imagination: The Potential of Cool Japanology]*, edited by Hiroki Azuma, 15–46. Tokyo: NHK Books.

Wentworth, Rob.
1996. "Computer Virus!" *Up All Night Robotics*. July 1996. http://uanr.com/articles/virus.html

Wittkower, D. E.
2012. "On The Origins of The Cute as a Dominant Aesthetic Category in Digital Culture." In *Putting Knowledge to Work and Letting Information Play*, edited by Timothy W. Luke and Jeremy Hunsinger, 167–75. Transdisciplinary Studies 4. SensePublishers. https://doi.org/10.1007/978-94-6091-728-8_13

Yoda, Tomiko.
2006. "The Rise and Fall of Maternal Society: Gender, Labor, and Capital in Contemporary Japan." In *Japan After Japan: Social and Cultural Life from the Recessionary 1990s to the Present*, edited by Tomiko Yoda and Harry Harootunian, 239–74. Durham: Duke University Press Books. https://muse.jhu.edu/article/30686

Young, A. and Moti Yung.
1996. "Cryptovirology: Extortion-Based Security Threats and Countermeasures." In *Proceedings 1996 IEEE Symposium on Security and Privacy*, 129–40. Oakland, CA, USA: IEEE Comput. Soc. Press. https://doi.org/10.1109/SECPRI.1996.502676