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Formulating Fake Futures: The Tomorrow Through the Filters of a Computational Network

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Formulating Fake Futures: The Tomorrow Through the Filters of a Computational Network

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Keywords: #time, #future, #fake, #blackbox, #human, #GIGO, #WYSIWG, #computation

— The future is a strange space.

It is in a state of continued crisis, just on the edge of a catastrophe and very uncertain. The future, by definition, is always fake, because it cannot be verified till it has already happened.[1] As I write these down, they feel like pithy observations or a polite summary of the large amount of work that is done on the idea of the future.[2] And yet, something strange seems to have happened to conversations around future in the digital times. The idea of a future in crisis and future as fake pervades almost all our global and immediate conversations—we seem to have discovered them anew. Be it the climate change deniers, the anti-vaxxers, the flat earth advocates, men's rights activists, Brexiteers, incels, neo-nazi supporters, fascist states eroding democracy, nations building walls, and communities attacking their own people,[3] these two characteristics tie them all together.

1. Alvin Toffler in his iconic book *Future Shock* had already warned us that the future would soon become unrecognisable and irreconciliable because 'too much change in too short a period of time' is becoming the status quo—a prophesy that masqueraded as the promise of digitalisation. Alvin Toffler, *Future Shock*, Random House, 1970.
2. Kum-Kum Bhavnani et al. have a most incisive anthology to think through what feminist futures can look like and offer a more detailed and nuanced set of perspectives on the strangeness and the cyclical nature of the future. While not directly a thesis on digital technologies, the book remains a landmark piece that weaves together multiple voices to think through the idea of the future. Kum-Kum Bhavani, John Foran, and Priya A. Kurian (eds.), *Feminist Futures: Re-imagining Women, Culture and Development*, Zubaan, 2005.
3. Michael Butler and Peter Knight look at the anatomy, epistemology, and weaponisation of conspiracy across all of these domains. In their introduction, they argue that conspiracy theorists claim that 'conspiracy works in secret and does not rveal itself even after it has reached its goals.' This particular idea of conspiracy as that which cannot be known and will not also be revealed, is a characteristic of the framing of the future, that I want to bring to. Michael Butler and Peter Knight (eds.), *Routledge Handbook of Conspiracy Theories*, London: Routledge, pp. 2.

They all seem to believe that the state of the world we are in is heading to a future catastrophe, and they also believe that the current state of interventions and critiques—environmental justice, women-queer-trans rights, racial equity, data- and evidence-driven policy, and economic and labour equality—are all projecting a future that is fake. It is important to understand that while we might call a lot of these conspiracies on 4chan 'fake news,' these groups characterise the others as perpetuating fakeness. We are, presuming you are on my side of the political spectrum, their fake news. The work that we do is often what seems to propel the future in a state of crisis and our vision of the future as fake. I want to suggest that apart from the ideological and political contestation of whose future is more fake, there is a technological reshaping of the future which needs further scrutiny.

I particularly interpellate in the conversations of digital futures because something strange has happened to time. It is good to remember that time is a technology of organisation and measurement. It is, what Andy Clark[4] would call, a 'human-centred technology,'[5] where the technology becomes invisible because it is a fundamental unit in our conception of who we are, were, and will be. Time, as a technology, helps organise our individual and collective experiences, by giving us models to make sense of the past and the future. The way in which it makes a difference between the past and the future is by applying two paradigms of meaning making upon them: the past is a function of probability; the future, of possibility.

4. Andy Clark, *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence,* Oxford University Press, 2003.
5. While Clark gives many different definitions and examples of human-centered technologies, the one characteristic he persistently upholds is that *'human-centered technologies progressively blur the already fuzzy boundaries between thinking systems and their tools for thought [...](producing) a future in which so many of our interactions with so-called agent technologies instead of with flesh and blood humans.'* (pp. 177–178).

The distinction in the first order of sense-making between probability and possibility is critical to understanding the ways in which digital technologies shape and process time. Probability is in the realm of logic. In Logic, as a discipline, and practice, the veracity of a future projection or a claim is processed through the function of pattern recognition. A simple logical equation would suggest that if an event X has happened once, it is likely that it will happen again. Given a particular set of circumstances if the event X happens multiple times and each time, the outcome is the same (or similar); eventually, we can deduce that this is the most probable of all outcomes and hence consider that as the natural outcome of things. Or in other words, if something happens once, it will happen again, and if the same thing happens each time, then the likelihood of other outcomes is so low that we can eliminate them.

Wendy Hui Kyong Chun (2016), in her work on 'habitual new media' calls these 'habitual practices.' Chun suggests that the mechanical, repetitive, and cyclical nature of new media objects is designed to favour and reproduce only the expected outcomes from massive data processing, which means that the space for newness, variability, or unexpected occurrences is eliminated.[6]

This is why digital computational networks create probability driven models which make causal and correlative connections between the different data points that are mapped in that system. Such a closely curated model of meaning making, which only looks at selected data points and creates closed-loop connections in order to narrativise phenomena

6. Particularly looking at the ways in which Big Data circulation networks condition these limited outcomes as habits, Chun writes, '*Not accidentally, the correlations exposed and exploited by many of the consumer uses of Big Data focus on the amplification of consumer behavior: if you have bought this, you probably also want to buy that. The goal is to program customers to act in certain ways (or to predict present conditions or future habits), based on habits already contracted.*' ▷ Wendy Hui Kyong Chun, *Updating to Remain the Same: Habitual New Media,* MIT Press, 2016, p. 58.

through predictive models, immediately lends itself to historiography. History is subject to computation of time through the lens of logic. It is always known and it can be demonstrated. History claims factuality through pattern recognition and becomes fixed in its meaning. It is also important that history be fixed because the fixity of history allows us to open up the horizons of interpretation and projection of a future that is unstable and uncertain. Because history is fixed, the future, it would say, can afford to be variable.

This variability of the future is a condition of possibility. The possibility horizon, unlike the probability function, deals with every occurrence as equal value occurrence. It is a mathematical computation of time and chance, where every possible outcome of an occurrence X needs to be postulated, hypothesised, and expanded in order for the complexity of the occurrence to be understood. Within this possibility horizon, the repetition of a result or the frequency of an occurrence does not weight favourably towards that particular outcome. Possibility computation of time gives way to idea of multi-verses, quantum states of being, and the experimental and creative inquiries into the state of being.

Ironically, possibility horizon gives more preference to the discovery of an anomaly or a pattern disruption because the 'deviant' or the 'irregular' outcome gives the possibility of new theories, frameworks, approaches, and understanding that further the space of scientific knowledge and thought.[7] The future, mathematically speaking, is bizarre,

7. Network engineer Duncan Watts expands upon the idea of positive deviance and how it affects information processing in computational networks. Watts argues that the anomaly in a network is in fact the beginning of edge-transgression, where information starts flowing through unexpected and unscripted routes, often creating new connections. This phenomenon is also what enables self-learning algorithms which are programmed to continually look for positive deviance behaviour and follow it through to expand the scope of its data mining. Duncan J. Watts, *Everything Is Obvious: *Once you Know the Answer,* Atlantic Books, 2011.

irregular, uncertain, unknown, and hence also without the burdens of historical truth and fact. The future cannot be proven but only computed in all its possibility, and so complex is this task, that it becomes impossible to actually hold it to a truth; it can always only be fake because all the possibilities are potentially alive, till one of them meets the standard of verification, and everything else gets rendered fake or unviable.

Given that these are the ways by which we have always computed and processed time—measured and projected it using the technologies at our service—it is worth asking what has changed in our contemporary times, that the crisis of the future and its potential fakeness are suddenly being discovered as profoundly shattering events. The claims that the future is newly in a state of catastrophisation and suddenly fake, might be easy to dismiss because we know that the future is always in a state of crises where we don't yet know which possibility will materialize, and it is always going to be fake because if only one possibility can occupy a final outcome. All the others will be automatically proven false. Or fake.

Why then, are these large swathes or people, who are angry and frightened, suddenly discovering these as new truths—that the future is in a state of crisis, and it is, at least till it happens, fake? Or in other words, when did we start putting the burden of verification on the future as if it was history, thus willing to dismiss it as fake and hence critical? There might be many different answers to make sense of this inversion of the order of logic and mathematics—of probability and possibility—but I pin it down to the state of computation that is emerging as the dominant aesthetic and mechanics of our times. The computer, at the risk of being blasphemous, is a very expensive time-counting

machine.[8] As it becomes the default mode of making sense of our worlds, it has introduced a strange instability in our measurement and hence the conception of the future. It does so by putting the lens of logic and probability on the idea of the future through generating probability models of chance and risk.[9] The earliest manifestations for this were seen in risk-assessment algorithms and models that were used by banking and financial institutions which changed the way of global capital. Similar applications have been seen in the ways by which social housing or predictive policing have implemented future studies by putting probability driven futures as the de facto ways of assessing and accessing the futures.[10]

One of the ongoing and unfolding crises of these kinds of predictive futures are naturally found in the most over-regulated and digitally organised societies like the Netherlands, where I live and work. At the moment of writing this essay, the Netherlands has a custodian government, an extension of a failed government,[11] which was dissolved

8. Evelyn Wan, in her doctoral work, gives an exhaustive insight into how the arrangements and placements of time essentially frame the idea of computation. Wan particularly draws attention to how, because our computational networks are about arranging time, they also take us out of time, creating new ways to exercise algorithmic power. Evelyn Wan, *Clocked: Time and Biopower in the Age of Algorithms,* University of Utrecht, 2019.
9. Cathy O'Neil examines the societal impact of algorithms where she gives a comprehensive understanding of the ways in which the matrix of links, networks, databases and algorithms created the models for risk assessment in global financial capital. Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy,* Broadway Books, 2016.
10. In a long form essay, Emily Badger examines the ways in which algorithms produced forms of discrimination in allocating social housing and the need for accountability. Emily Badger, 'Who's to Blame when Algorithms Discriminate?', *The New York Times,* August 20, 2019, https://www.nytimes.com/2019/08/20/upshot/housing-discrimination-algorithms-hud.html (last accessed on November 15, 2021).
11. Jon Henley for *The Guardian* provides extensive coverage of the circumstances that led to the collapse of the government in the wake of the scandal. Jon Henley, 'Dutch government faces collapse over child benefit scandal', *The Guardian,* January 14, 2021, https://www.theguardian.com/world/2021/jan/14/dutch-government-faces-collapse-over-child-benefits-scandal (last accessed on November 15, 2021).

as a result of one of the biggest tax-office scandals in the history of the country. The scandal, brought to public attention in September 2018, showed a persistent pattern between 2013 and 2019, where the Dutch tax offices wilfully, wrongfully, and punitively accused an estimated 26,000 parents in the country of making fraudulent benefit claims for childcare. The kinderopvantoeslagaffaire (childcare benefits scandal) revealed that the result of these accusations led to tens of thousands of euros which the families had to return, driving them to financial hardship, social collapse, and inter-personal relationship ruin.[12]

The unfolding of the childcare benefits scandal is now the telling of many stories that have all the elements of an overzealous government, a xenophobic invoking of 'outsiders' exploiting social welfare systems, shift of trust from individuals to systems, and leveraging the power of the office to sacrifice proportionality for efficiency. However, in all these different stories, perhaps the one that might be the most underserved is the story of how computational models of the future created a condition of 'unprecedented injustice' that undermined the protections that the affected parents should have received and violated the 'fundamental principles of the rule of law.'

As the Amnesty International Report on *Xenophobic Machines* points out,

> 'the risk classification model [was] used to test who is more likely to be potentially making inaccurate requests and changes and potentially committing fraud.'[13]

12. Jan Kleinnijenhuis does a careful reconstruction of the entire scandal and all its different facets in the Dutch newspaper *Trouw* and also shows the larger stakes beyond algorithmic fairness that is a focus of this essay. Jan Kleinnijenhuis, 'Wie wist wat in de toeslagenaffaire? De kluwen van hoofdrolspelers ontward', *Trouw,* November 14, 2020, https://www.trouw.nl/politiek/wie-wist-wat-in-de-toeslagenaffaire-de-kluwen-van-hoofdrolspelers-ontward~b721c834/ (last accessed November 15, 2021).
13. The report looks at the direct links between algorithmic fairness and human rights and also makes some constructive suggestions for Artificial

The tax authorities launching these accusations were relying on a data-driven fraud detection methodology which included algorithmic decision that used projection as evidence of guilt. Thus, parents and carers who had already received the benefits after being deemed eligible were asked to produce extra information to verify their entitlement. When they asked what material needs to be resubmitted or verified, no information was forthcoming. The risk classification model remained classified.

The Report says,

> '[t]he risk classification model was a *black box* system that included a self-learning algorithm. *Black box* systems are algorithmic systems whose input and operation are not visible to the users of the system or to other parties'.

While this model of blackboxed[14] technologies was bad enough, unsurprisingly, the straw that broke the camel's back was the revelation that the biggest filter in targeting individuals was national and ethnic profiling. The Tax and Customs Administration offices trained algorithms on data-sets that used 'Dutch citizenship: yes/no' as a central parameter in the risk classification model to assess the risk of incorrect applications and detect fraud. Thus, people with non-Dutch nationality received a higher risk score. The algorithms reinforced the xenophobic design that connects ethnicity with crime, and nationality with characteristics

Intelligence for social good. Amnesty Internationa 2021, *Xenophobic Machines: Discrimination through unregulated use of Algorithms in the Dutch Childcare Benefits Scandal,* London: Amnesty International Ltd. https://www.amnesty.org/en/documents/eur35/4686/2021/en/ (last accessed November 15, 2021).

14. It is also important to draw upon Bruno Latour's (1999) work on 'blackboxing' in his critical analysis of knowledge production in the sciences. Latour argues that blackboxing is '*the way scientific and technical work is made invisible by its own success. When a machine runs efficiently, when a matter of fact is settled, one need focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become.*'
▷ Bruno Latour *Pandaora's Hope: Essays on the Reality of Science Studies,* MIT Press, 2004, p. 304.

for fraud. The harms of ethnic profiling were amplified by economic profiling, where people with lower economic status were also persecuted more actively and harshly.

The dramatic passing of the no-confidence motion against the government helmed by Mark Rutte in its third term and the continued lack of a new government in the Netherlands highlight the gravity and the criticality of this scandal that grows in its unfolding investigation. While the political consequences and ramifications are plentiful, I once again go back to looking at the ways in which the future was framed in this entire process. The series of self-learning algorithms, programmed to infer patterns of criminality and fraud, from older databases which used ethnic, racial, and national profiling, were expressly coded into the risk assessment model and systems of the Tax and Custom Administration.

These algorithms were used to project a future which did not exist on to selected individuals without any burden of proof. The opacity of the system insisted that the space for negotiation, correction, or appeal was not only limited but also unavailable, because the future, based on probability principles and logical correlation and causality, was immediately deemed as certain, fixed, and having only one possible outcome—the conviction of the guilty. In earlier systems of fraud analysis, where the burden of proof would have been on the history, the admissible documents and practices and omissions which would have been presented for scrutiny, were instead put upon a possible and potential guilt, verified by the models rather than the evidence produced.

What we see with the Dutch Child Benefits Scandal is not merely the callous ignorance and willing neglect by government representatives who were complicit both in not providing spaces of mitigation and in expressly encoding ethnic profiling in the systems, but also a startling example

of the ways in which our futures are being computed. We have, in this instance, an illustration of how something strange has happened to time, because the future, which was always the space for uncertainty, was construed as fixed and certain. Any chance of appeal to this computational projection and prediction of the future was reduced by blackboxing the technologies, and taking away the chance of mapping other possibilities and outcomes. Probability became the horizon of the future, and in the process, all other attempts at questioning the projected outcome were invalidated.

At the same time, the past, which was fixed in the very systems which were now performing scrutiny, was suddenly open for prediction. The long trails of documents that were submitted by the parents and carers to receive the entitlements and verified by the system, were considered invalid. The system's own verification processes were overridden and the people were asked to re-validate their past without offering them any credible pathways to make their history legible to this algorithmic scrutiny. Even as the future was foreclosed, the past became uncertain and open to multiple interpretations and accusations which were again not supported by the discovery or uncovering of any new material.

This inversion of the axis of time has direct consequences on how faith and trust get eroded from the public. While the investigation did show that the affected people had legitimate reasons to distrust the government, in the long period before the investigation, it was evident that the affected people were being put into a condition of temporal schizophrenia where their past was up for prediction as if it had not happened and their future was being scripted as if it had already happened. This inversion of time, visible in this particular affair, is characteristically the new status quo of computation systems and the ways in which they develop

new eras of truth-telling. It brings to light, the conflict between probability and possibility between logic and mathematics, between machinic certainty of the past and the human uncertainty over the future, and inverses them to recreate all of us as ontologically fake and unable to measure up to the new indexes of verification produced by the computational inversion of time.

This brings me to ask the question which is at the heart of this essay: who contrives the moment of truth in computational information systems? If the future has become this space of suspicion, overridden with probability and no longer substantiated by the fixity of history, what do we do with the ideas of truth and fakes? I try and expand this question through two particular moments in global digital unfolding that might give us a better insight into how computational fakes relate to the idea of time. In doing so, I propose that when it comes to digital fake news or misinformation, what is at stake is not the question of content, meaning, interpretation and context, but the circuits of circulation and the protocols of intentionality.

Nishant Shah

I.

Virality Is Virality

Perhaps one of the most alarming examples of this moment of truthiness, independent of the content and meaning, is in the rise of conspiracy theories on the darker webs of spaces like Reddit and 4chan. It is often proposed that conspiracy theories rise because they offer a simplistic view of the complex world that is too difficult for people to process. However, a jump down the universe of alternative facts immediately belies this presumption. It is often surprising that the people engaging in conspiracy theories invest an enormous amount of energy, time, and resources in building the worlds that they occupy. They produce primary references, secondary links, and tertiary evidence in order to support and substantiate their arguments. The debates and discussions often have elaborate references, long winded explanations, and intricate and nuanced jargon that is almost impossible to grasp for a passer-by. Like any other form of knowledge production, the fake news conspiracy theories include highly sophisticated forms of sophistry, rhetoric, and arcane codes for methodological replication of hypotheses across vast data samples. The truthiness, or the lack thereof, is not merely a contrivance of laziness. Indeed, the structures of their arguments, viewed from a value agnostic ethical vacuum can sometimes mimic the structure of research driven knowledge, and often appropriate the language of resistance and protest to exercise and valorise the hierarchies of power and harm.

The truthiness of these groups is not tied then, to the content or the meaning—both of which are often leaps of imagination and practices of misplaced faith. The truthiness which is also the virility of these hypermasculinist movements is in virality.[15] Digital virality, which is a condition

15. Feminist media scholar and activist Alexandra Juhasz, expands on this through the phrase 'virility is virality'(36). Juhasz writes, '*The Internet seek, supports and succeeds via virality, which is understood as a truism and a good, as self-evidently powerful and right, as the truest pursuit of the habitat. This is really fake. Virality is a precondition for fake news.*' ▷ Alexandra Juhasz,

of circulation, repetition, and an over-inscribed cybernetic feedback loop is the currency through which a truth value is established. Take the co-option of two innocent symbols into the fold of white supremacists as an example.

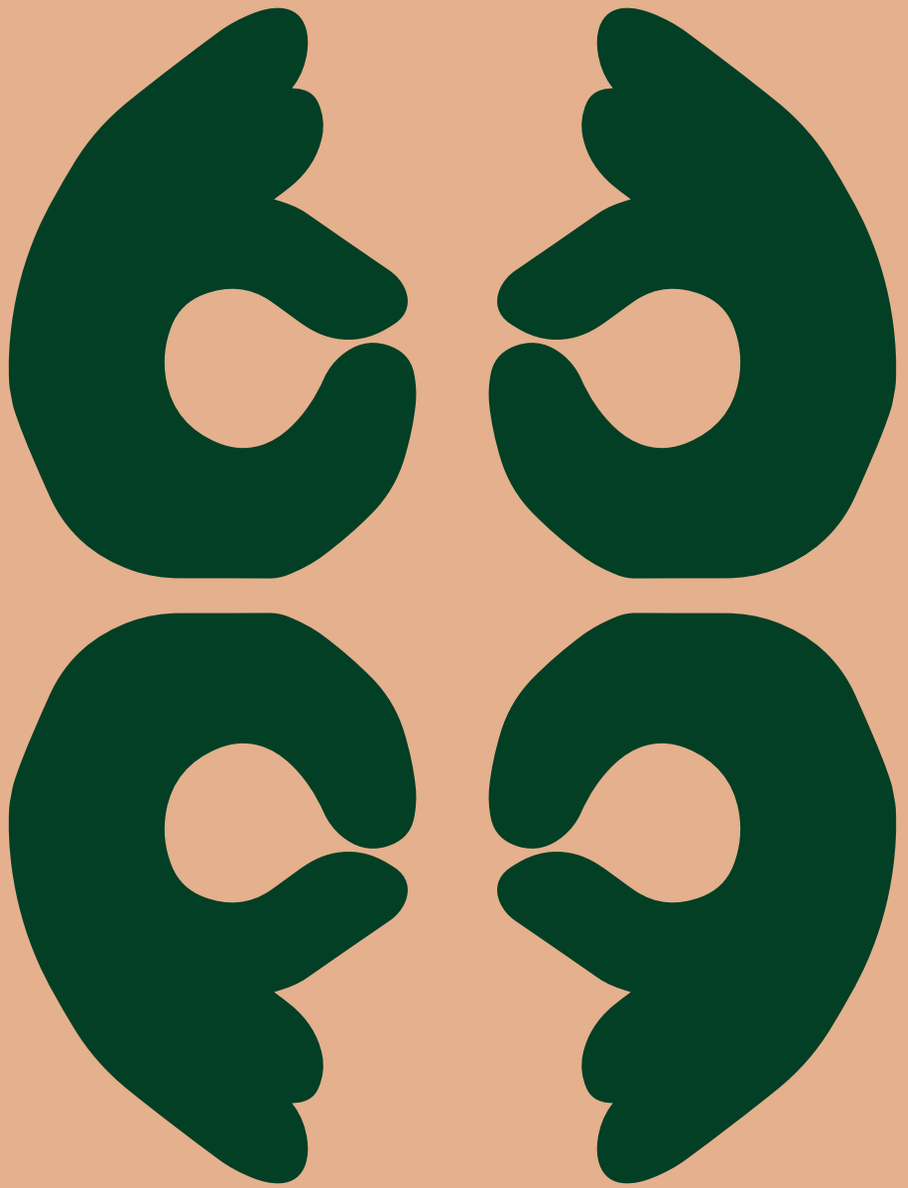
The first is the universal sign for OK, with the first finger and thumb making a loop. The use of the OK sign as a code to signify the presence or tolerance of white supremacist values and ideas began as a hoax. An anonymous user wanted to prank the more liberal communities and leftists by insinuating that the white supremacist groups are using secret coded language to find each other and organise in secret. The user proposed that the appearance of the OK sign or the OK emoji, represented the presence of the OKKK white supremacists in different parts of the web.

The prank got traction. More people joined the prank and started using the symbol ironically. Media attention and publicity helped generate hundreds upon thousands of memes and fake information about this secret code. The protest, shock, and woke performance of horror from those who found this blatant display of harmful intentions garnered more attention on to the phenomenon. In about three months, this fake sign, started getting used by neo-Nazi associations in the United States of America.[16]

On the Internet, the sign became a real thing—something that the right wing white supremacists actually started adding to their posts—mimicking the way in which sexuality rights activists and supporters use the rainbow emojis. A supporter of Donald Trump used that sign in one of the

'Who Contrives the Moment? On Cyberfeminist Dating', *Really Fake*, University of Minessota Press, 2021, p. 37, https://meson.press/books/reallyfake/ (last accessed November 15, 2021).

16. A detailed analyses on how the 'OK' hand gesture became a symbol of hate in the long form *NPR* essay documents how the viral networks amplified fake news to make it into reality. Bobby Allyn, 'The ÓK Hand Gesture is Now Listed as a Symbol of Hate', *NPR*, September 26, 2019, https://www.npr.org/2019/09/26/764728163/the-ok-hand-gesture-is-now-listed-as-a-symbol-of-hate (last acccessed November 15, 2021).



Twitter, November 11, 2021, 10:58 PM

New Zealand mosque shooter, Brenton Tarrant giving the white power 'OK' sign as he appeared in court charged with murder, *The Times*, March 16, 2019, thetimes.co.uk/article/new-zealand-shooting-suspect-shows-court-white-power-sign-qxnvdhdm0 (last accessed November 25, 2022).

rallies,[17] which was picked up by more media outlets. And thus, the contamination of a data set by people who wilfully produced information that was verifiable but untrue, managed to produce a new symbol of racist politics.

The second icon that made this racist transformation was Pepe the Frog, who famously became a meme saying 'chill out man'. Pepe, like many other visual memes, was often used in many arguments on disagreeing sides, and was quite popular. Drawn from a children's cartoon and used as a cute meme, Pepe rose to notoriety when one of the users on Redditt photoshopped him in front of a concentration camp, spewing anti-semitic slogans.[18] The imagery of a children's classic character inserted in these visuals sparked an Internet outrage. However, the Internet trolls who got their kicks out of accelerating the offence started using Pepe in more scandalous and controversial settings, each time being fed by the repeated outrage of the woke Internet. An ironic meme quickly became so reinforced as representing white supremacy, that indeed, much like the OK sign, white supremacy groups started using the green frog for their black intentions.

The circulation of v movements became so viral that the original intent and content of Pepe got completely overridden by this new truth that was written on to him. In both these instances—the OK sign and Pepe supremacy are lessons of how new content gets measured differently because they are productions of scale and not of time. As time

17. Tommy Beer reports on this phenomenon that captured the global media attention. Tommy Beer, 'Trump Supporter caught flashing apparent White Power Sign while behind President', *Forbes,* October 24, 2020, https://www.forbes.com/sites/tommybeer/2020/10/24/trump-supporter-caught-flashing-apparent-white-power-sign-while-behind-president/ (last accessed November 15, 2021).
18. Reporter Jessica Roy builds an accessible time-line of how Pepe became co-opted by white supremacist groups. Jessica Roy, 'How 'Pepe the Frog' went from harmless to hate symbol', *Los Angeles Times,* October 11, 2016, https://www.latimes.com/politics/la-na-pol-pepe-the-frog-hate-symbol-20161011-snap-htmlstory.html (last accessed November 15, 2021).

becomes inverted within digital computation networks, the production of value and meaning often gets pinned to questions of scale. The capacity to anchor meaning on to an object, not because of its original intention or purpose, but the sheer scale of repetition, weight of hyperlinking, and the correlations caused by human-algorithmic curation that emphasises the fact of repetition over the truth of reception lead to the creation of new meanings of truthiness that are beyond the confines of time.[19]

In the case of the OK sign and Pepe, what is alarming is that while they have evolved into becoming these icons of hate speech and violence, and even when we are able to trace the evolution of their iconography, they are now essentially true in their signification. The past that they have—the fixed meanings of their origin or development—is now completely erased by making it predictive and irrelevant to the value of replicated circulation. At the same time, any attempt at reclaiming these symbols or placing them in the fold of innocence and ironic memetic practice would be impossible. The future of these two signs is written by the probability of the future, and the only responses that are left now are those moored in censorship, censure, and critique.

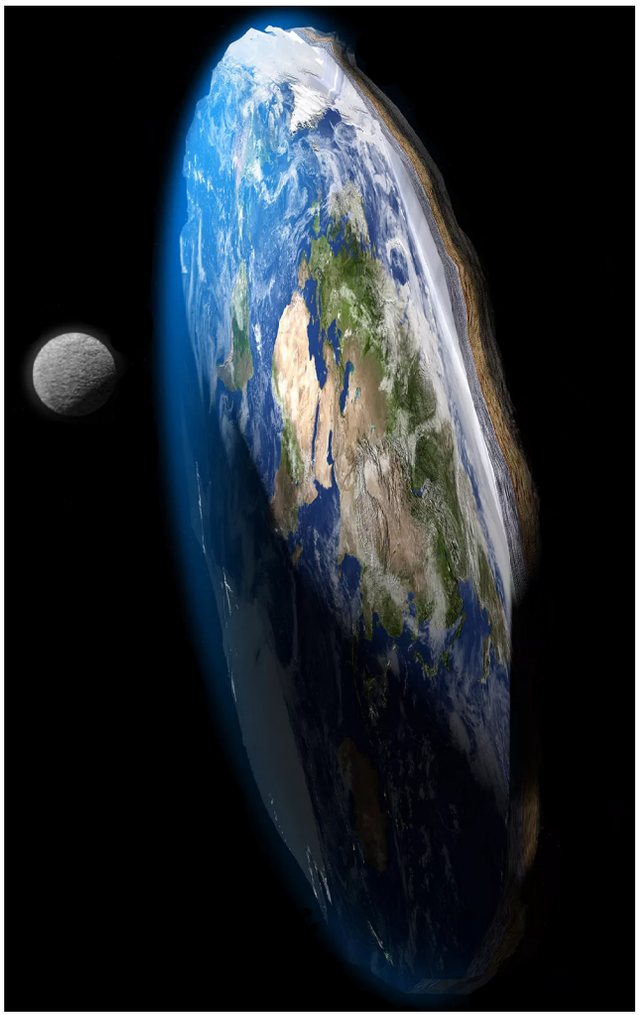
Digital circulation is a new kind of atemporal phenomenon. The virality of circulation produces such an extraordinary explosion of multiple presences that the scale overshadows time, which is anyway the parameter that fast computing is supposed to eliminate. As we look at more seamless computation, and uninterrupted transfer of information without lag, we are dealing with units of time that

19. Reporter Elle Hunt documents how the creator of Pepe the Frog—Matt Furie—tried to rescue the frog from these misappropriations through legal and technological battles, eventually to concede defeat and give in to this notorious legacy of his work. Elle Hunt, 'Pepe the Frog kills off internet meme co-opted by white supremacists,' *The Guardian*, May 8, 2017, https://www.theguardian.com/world/2017/may/08/pepe-the-frog-creator-kills-off-internet-meme-co-opted-by-white-supremacists (last accessed November 15, 2021).

are too small for human comprehension. Thus, we orient ourselves to scale, and imagine that algorithmic circulation and hyperlinked repetition will be a new way of contriving the moment of truth, which is no longer defined by the vagaries of time.

II.

If It Fools You, It Is Not Fake



Along with computational circulation, there is perhaps another axis of digital networks that contrives the moment of truthiness, which we need to examine more closely—the protocol. In his rich media history of the protocol, Alexander Galloway argues that the founding principle of the Net is control, and that the control is established by the production of technical protocols of connection.[20] Galloway examines many technological protocols like the TCP/IP and the DNS to show how bureaucratic organisations of the web lead to exercise of power and control through opinion being established as code. Taking Galloway's call for finding new reading practices to understand the multiply complex nature of the web, I suggest that we need to read the protocol, not as a technological operation but as a technological principle.

Especially in order to understand the moments of fakeness and the performance of truthiness, it is important to understand that the very design of our technological devices is inscribed by some non-negotiable principles that are not often presented in public knowledge but are the backbones of computer education. The two principles that I want to establish as protocols that lead to the operationalisation of information online are GIGO and WYSIWYG.

GIGO
Garbage In ⇆ Garbage Out

is often taught in the early days or learning programming, reminding the coder that they are in absolute control of the execution of the simple programs that they are writing. If, at the end of executing a set of commands, the results are demonstrably untrue, it is the programmer at fault. If the code is written correctly, if it can be parsed and executed

20. Alexander Galloway, *Protocol: How Control Exists after Decentralization*, MIT Press, 2004.

and thus follows the protocols of syntax, and still gives erroneous results, then the programme or the processing unit are not at fault but the programmer is. So, for example, if a programmer writes a small programme to do simple addition that gives out the result 1+1=3, it means that the programmer has made an error in feeding in the parameters. The reason why the result is garbage is because the input is also garbage. Expanding it upon algorithmic programming, we get similar arguments: the algorithm produced racist results because the data set that it was fed on, was racially skewed. If the data is garbage, the results will also be garbage.

However, what is embedded in GIGO is another principle that gets implicitly reinforced and creates a different engagement with the question of truth and fakes. In the GIGO paradigm, the programme that produces the erroneous result is, in actuality, absolutely true. The result might be false, but in the small-world of the computational network within which the programme was running, it is absolutely true. It is a recognition that the computational networks are artificially created protocols which can perform perfectly well, and indeed perform robust computation even if the result might be fake or erroneous. GIGO is not really a comment on the errors in inputs, but in establishing that a programme that runs, irrespective of the intention, but merely at the levels of execution and protocol, is absolutely true.

Another example of this is in the principle of

WYSIWYG =
What–You–See–Is–What–You–Get

When compared to GIGO, WYSIWYG is a much younger principle. It has its origins in the development and democratisation of the Graphical User Interface that we now treat as

the default of most human-computer interaction. With the ubiquitousness of reflective, sensitive, responsive screens through which we process information in contemporary times, there is a need to establish a direct connection between human gestures and machine processing. Most of our computer interactions are built of microscopic feedback loops that establish a seamless correlation between our input gestures and the outputs that they cause.

The immediate and simultaneous appearance of characters on the screen when we press keys on a keyboard; the haptic vibrations of our cell phones as we scroll, click, pinch and flick; the different icons and signs that move, flicker, change colour, and continue to engage us in the backend processing of information, are all examples of WYSIWYG design. It is good to note that while GIGO is a programming principle, WYSIWYG is a design principle, and it produces a gloss over the multiple actors and intermediaries that make meaning and final outputs possible in our everyday computational practices.

In their evocative visual essay *Anatomy of an AI System,* Kate Crawford and Vladan Joler, show us the complex set of translations, transfers, transitions, and transformations that are hidden under the instant response between an Amazon echo query and the final outputs.[21] These negotiations of meaning abstraction, perception, and production are not only complex but also invite multiple expressions of power and control from different stakeholders and actors. However, the immediacy of response, the near-elimination of lag, and the visual endorsement that establishes a false cybernetic loop between the user and the visual device, obfuscate these processes of meaning making and knowledge production. WYSIWYG insists that the transparency of our devices

21. Kate Crawford and Vladan Joler, *Anatomy of an AI System: The Amazon Echo as an anatomical map of human labor, data and planetary resources,* 2018, anatomyof.ai (last accessed November 15, 2021).

means that there is an intimate and immediate connection between what we see and get as our operations and mechanics get operationalised on the screen.

In emphasising on the seeing and the getting, the principle completely ignores the conditions of doing. It does not make transparent how we interact, and what are the kinds of labour and work we do in order for the computational queries and processes to start. It also blackboxes the different codes, protocols, and opinions that shape our information query and bundle it across various networked stacks to give particular outputs that are customised not to the user but to the systems that generate value from the process. WYSIWYG as a design principle keeps both the user and the final outputs of truthiness on the interface, thus closing down the internal space and the invisible processes of networking to autonomy and control that is neither transparent nor accessible to the users.

Perhaps the most startling examples of these moments of truthiness, constituted by the two principles of GIGO and WISYWYG can be illustrated through a story of not-so-deep fakes that became national pivotal points in the unfolding political situation in India. Kanhaiya Kumar, a political activist, then studying at the Jawaharlal Nehru University (JNU), in New Delhi, India, was arrested in 2016 on charges of sedition.[22] His arrest came in the midst of a governmental crackdown on JNU, where voices of dissent against jingoistic nationalism and militarised statehood were already deemed a problem for the right-wing political party BJP, which was in power in the country. Kumar, whose public speeches as a political student leader were peppered with anti-caste politics and a commitment

22. *The Wire* staff does a sympathetic reconstruction of the sedition charges and arrest of Kumar and his other partners in their reporting. *The Wire* staff, 'JNU Sedition Case: Umar Khalid, Kanhaiya Kumar, other Accused appear in Court', March 16, 2021, https://thewire.in/law/jnu-sedition-case-umar-khalid-kanhaiya-kumar-delhi-court (last accessed November 15, 2021).

towards economic and social justice, was seen as a troublesome figure that questioned and mobilised against the neo-liberal tendences of the government.

During a series of protests on campus by peaceful students protesting against the capital punishment sentence and hanging of Afzal Guru after being charged with accusations of terrorism, the government had already invaded the campus, cracking down with violence on the agitations and protests organised by the students on campus. National attention was on the ways in which the government was exercising censorship and violating the constitutional rights of freedom of speech and assembly. With media and global attention, it was difficult for the ruling party to actually snub out the protests.[23]

Hence, in the middle of these stand-offs, the government suddenly charged Kanhaiya Kumar, one of the most visible and viral faces of the campaign with charges of sedition. Sedition, within the Indian legal context, allows to suspend fundamental rights and civil liberties, and effectively became a way by which a state of emergency could be declared in order for the government to crackdown on the protests.[24] However, the charges of sedition were based on doctored videos—not even excellent examples of deep fakes, but merely edited videos that showed Kumar, along with other activists on campus, demanding for the freedom of Kashmir from India.

23. The Amnesty International, Report, *India: Crackdown on freedom of expression must end,* February 17, 2016, https://www.amnesty.org/en/latest/press-release/2016/02/india-crackdown-on-freedom-of-expression-must-end/ (last accessed November 15, 2021).
24. In a related arrest of young political activist Umar Khalid, who shared the accusations with Kumar, Shudhabrata Sengupta writes a passionate analysis, of the ways in which 'national security' and 'sedition' have been the go-to strategies for the Indian state to exercise crackdowns and unconstitutional silencing. Shuddharbrata Sengupta, 'No tyrant can Endure: On the arrest of Umar Khalid', *The Caravan,* September 16, 2020, https://caravanmagazine.in/commentary/umar-khalid-arrest-delhi-police-riots-uapa (last accessed November 15, 2021).

Attributing secessionist intentions and performances to Kumar and his team, the Delhi police arrested him on charges of sedition, using the doctored and faked videos as evidence. Even before the digital forensics could announce the video as fake and invalid, a large part of the governmental media apparatus had already used the video in order to paint Kumar as a seditionist.[25] The chop and edit job which showed Kumar asking for 'Azadi' (freedom) was taken from another political speech where he was asking for freedom from hunger, feudalism, capitalism, and Brahminism, to name a few.[26]

The very fake nature of the video was evident from its interface and production value. It did not need forensic teams to declare that the video was doctored. This wasn't a digital masterpiece that needed experts to tell us that we were looking at a fake object.[27] However, the purpose of this fakeness was never meant to be anything more than making a truth possible for that moment. The video, a clear product of GIGO, was not supposed to bear the scrutiny of perpetual truth, but just the illusion of momentary truth. The video was fake, but for what it was supposed to represent, and in the universe that it was introduced into, it was completely true to

25. In their fact checking process, many news media outlets documents how popular, right-leaning mainstream media outlets circulated the video without questioning its intent or veracity. India Today Web Desk, 'Forensic experts say Kahaiya video was doctores', *India Today,* February 20, 2016, https://www.indiatoday.in/india/delhi/story/forensic-experts-say-kanhaiya-video-was-doctored-309626-2016-02-19 (last accessed November 15, 2021).
26. Rahul Kanwal details the doctoring of the video and what this spate of fake news bodes for the fight for freedom of speech and expression in India. Rahul Kanwal, 'Panelists debate whether Kanhaiya sedition video doctored or not', *India Today,* February 18, 2016, https://www.indiatoday.in/india/story/panelists-debate-whether-kanhaiya-sedition-video-doctored-or-not-309451-2016-02-18 (last accessed November 15, 2021).
27. As the BBC report on the unfolding fake video phenomenon adequately points out, the video was obviously fake and yet was immediately viral not because of the truth value of the video but the context of its circulation. BBC Trending, 'Debunking the viral video of "sedition" that has captivated India', *BBC,* February 18, 2016, https://www.bbc.com/news/blogs-trending-35605099 (last accessed November 15, 2021).

itself. That is to say that this video was meant to be garbage but it was meant to be garbage that in that moment, contrived a truth which became a pivotal national interest point.

Simultaneously, the video was also a great example of the WYSIWYG principles. Reverting to the design of our digital screens that show all content alike, without context, and without discrimination, the video was riding on the idea that its very occurrence is what makes truth possible and not its content. The trolls who were manufacturing this truth via fake videos were relying on our quick attention economies of consumption and circulation because the digital devices come with the inherent promise that all information is equal and bearing truth. Instead of needing verifications of proofs, they depended upon the presumption that people who consume and share this video will most likely be doing it out of habit rather than discernment, thus allowing for the fake video to spread before it can be contained.

What contrives the moment of truthiness? The idea that a piece of fake code, object, or information can still be digitally held true and robust because they are measured not on the axis of verification but of duplication and circulation.

What contrives the moment of truthiness? The fact that we are so habituated in our practices of engagement that we willingly suspend our disbelief and align ourselves to the fake easily, because the design principles of digital technologies are aimed at reinforcing the idea that if it fools us, it is not fake.

What contrives the moment of truthiness? The idea that the value of digital objects is not in their meaning or intention but in their circulation and hyperlinked transfer. We have reached a point where the truth is no longer constituted through the axis of time but through the axis of scale, and thus producing new conditions through which fakes can be detected and truth be championed.

Nishant Shah

III. Making Space for the Future

I began this essay showing that there is a rediscovery of the future as a critical fake object, which is generating much anxiety and enabling the proliferation of information without signature, that travels in insidious ways to create multiple contradictory fake objects and processes which can no longer be reconciled. Through the different theorisations and extrapolations I have shown that this production of the future is not only being tightly curated by the growth and naturalisation of digital networks but it is also fundamentally being foreclosed as we all live in scripted tomorrows which bear the verification of fake/not fake.

This binary, fake/not fake, is characteristic of computational value coding because in this equation, fake is not an ontological descriptor but a residual one. Digital fakes are not about a foundational instability or error in the object under scrutiny. Digital fakes are that which is left out once information is passed through filters of protocols and principles, intentions and circulation. Digital fake is a negative category which then can be unstuck. We can move in and out of fakeness because indeterminancy is the very design of digitality. It is then important to emphasise that the future, in all its fakeness, is not necessarily fake but can be selectively rendered fake and deployed as such, to suit different narratives and policies.

If fake is not an absolute category and not an inquiry into the ontology of things, then perhaps we need to ask new kinds of questions. Our focus can no longer be on whether things are fake or not, but instead on the ways in which we make space for fakeness of multiple kinds. Instead of putting out purity tests of verification and filtering, we need to recognise that fakeness has multiple registers and they all need to be put into motion when we unpack the idea of practising possible futures.

And as we write in our book *Really Fake:*[28]
Not all fake stories are lies.
Not all lies are fake truths.
Not all real stories are true.
Not all truths are innocent of fakeness.

28. Nishant Shah and Alexandra Juhasz, 'Introduction', *Really Fake,* University of Minnesota Press, 2021, p. XXII, https://meson.press/books/reallyfake/ (last accessed November 15, 2021).

Colophon

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Nishant Shah, portrait and cover image by DALL-E, January, 2023

The future is a strange space. It is in a state of continued crisis, just on the edge of a catastrophe and very uncertain. The future, by definition, is always fake, because it cannot be verified until it has already happened. In this essay critical thinker and feminist Nishant Shah argues that the idea of a future in crisis and future as fake pervades almost all our global and immediate conversations. Be it the climate change deniers, the anti-vaxxers, the flat earth advocates, men's rights activists, Brexiteers, incels, neo-nazi supporters, fascist states eroding democracy, nations building walls, and communities attacking their own people, these two characteristics tie them all together. However, if fake is not an absolute category and not an inquiry into the ontology of things, then perhaps we need to ask new kinds of questions. Our focus can no longer be on whether things are fake or not, but instead on the ways in which we make space for fakeness of multiple kinds.

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