

ICON10 DETROIT 2017 ROADSHOW APPLICATION: MOKITA

Doomjolt ante

Some AI mumbo jumbo.

"How do they do it!? I don't care that much. Some a.i. mumbo jumbo. Point is let's make some crazy art!!"¹

"A few weeks ago we launched the Lara photo generator with help from our visitors and listeners #fotogenerator. By entering lots of photos and drawings of radio host Lara Rense into a system of artificial intelligence we taught the system what a photo of Lara should look like. The generator turned out to be hugely successful. Over 19,000 websites from all over the world linked to it. The vlogger community has also picked up on it. Unfortunately, we had to take the website down as the server costs had become too high for us to carry"²

On the 3rd of July 2017 the website, fotogenerator.nl, was obliged to close. With over "2 million unique visitors"³ it had proved *too popular* for its own good and exceeded the available server capacity of its 'creators' De Kennis Van Nu. They simply could not afford to run it anymore. Fotogenerator allowed users to make simple line drawings that were then 'processed'. The results of these digital transmogrifications ranged from fleshy Pikachu lumps and mangled ersatz Homer Simpsons to button eyed quasi cabbage patch monstrosities and everything in-between. Despite the uncanny and often unpleasant results that the algorithm threw-up, users flocked⁴, and when they were eventually denied their fun due to the website's closure, went on to produce some further monstrosities, this time in written form⁵. De Kennis Van Nu had taken the open source pix2pix software developed by computer scientists at Berkeley AI Research Laboratory (BAIR), UC Berkeley⁶, and adapted it to produce another online distraction. The website's popularity was testament to the freakish and exotic possibilities afforded by the pix2pix algorithm, it illustrated all too well the appetites of online communities. The desire to produce original, albeit 'use-less', visual material was evident in the sheer volume of traffic. Kennis and Van Nu were one of a number of creative practices⁷ that had adapted

¹ <https://steemit.com/photogeneration/@havok777/photo-generative-crazy-face-maker-and-others-pix2pix-fotogenerator> (accessed 4.3.18 / 07:51)

² https://www.youtube.com/watch?time_continue=112&v=pWNgg4f4jDg (accessed 4.3.18 / 08:22)

³ <https://dekennisvannu.nl/site/artikel/Fotogenerator-The-End/9232> (accessed 4.3.18 / 08:27)

⁴ "We can quietly drop the word 'viral': the Lara photo generator was smoking hot for weeks. Every day, hundreds of thousands of people worldwide used it to create zombie-like images.
<https://dekennisvannu.nl/site/artikel/Fotogenerator-The-End/9232> (accessed 4.3.18 / 07:17)

⁵ The responses to fotogenerator's closure were mixed – a good number of responders were confused and/or dumbstruck by De Kennis Van Nu's lack of entrepreneurial spirit, challenging them to monetize, activate the engines of commerce through advertising, Google analytics etc. There were the inevitable death threats, the desire to see De Kennis Van Nu and their families consumed by fire being one of the most odious and bizarre. [\(ref to this?\)](#)

⁶ The full (and largely incomprehensible to non-computer scientists) paper authored by Efros, A. Isola, P. Zhou, T. Zhu J-Y. *Image-to-image translation with Conditional Adversarial networks* can be found here: <https://arxiv.org/abs/1611.07004> (accessed 4.3.18 / 13:16)

⁷ "Since the initial release of the paper and our pix2pix codebase, the Twitter community, including computer vision and graphics practitioners as well as visual artists, have successfully applied our framework to a variety of novel image-to-image

the pix2pix code. The scientists at BLAIR readily acknowledged that the community of creatives had extended the software's capabilities beyond *their* original intention. They described the implied promise in the adaptations to the code in the following way; that pix2pix has the potential to become "a generic commodity tool for image-image translation problems"⁸. But this bland analysis of the algorithm's potential belies a number of cultural, scientific and educational effectors that are worthy of scrutiny. This short text does not afford the time or space to explore all aspects in detail, indeed the abstract makes specific reference to the potential impact on the Institutional discipline of Illustration. Therefore, the aim is to focus on this matter in the hope of achieving some clarity of purpose. It is the relationship between the broad discipline of Illustration, how it is taught and learned⁹, how it is considered in the context of professionalization in formal education and how it's pedagogic evolution may start to be considered, in order to effectively apprehend multiple, simultaneous and shifting practice landscapes, that is central.

So how does the story of fotogenerator and the pix2pix codebase meaningfully connect to a discussion about Illustration education? Perhaps, with the exception of the occasional dalliances of curious, tech savvy students exploring the ironic potential in unsophisticated imagery, it doesn't at the moment. It is true that the digitally corrupted images produced by fotogenerator owe something to the more expressive or cathartic forms of figurative Illustration, but they are essentially random at the point of processing and wholly dependent on the preloaded inputs; in fotogenerator's case the line art and corresponding photographs of Lara Rense. However, fotogenerator is probably the thin end of an AI wedge that is likely to have an impact on Illustration practice. Whilst fotogenerator and pix2pix had very obvious limitations in terms of their combined capacity to intelligently interpret the rudimentary drawn instruction of the user, it does not require a huge leap of the imagination to consider a more sophisticated future application with an increasingly substantive database of source imagery and *beefed up* interpolative 'intelligence' giving more enhanced results and greater *creative* scope. It may also be worth considering how, in the future, that intelligence might collate and classify the various visual inputs and preferences of users, developing an augmented understanding of aesthetic biases, reading the choices made in response to variable contexts and stimuli and starting to compile, adapt and *create* imagery based on parameter inputs¹⁰. In other words, the intelligence that is described in novelty applications like

translation tasks, far beyond the scope of the original paper. Figure 11 shows just a few examples from the #pix2pix hashtag, including Background removal, Palette generation, Sketch → Portrait, Sketch→Pokemon,"Do as I Do" pose transfer, as well as the bizarrely popular #edges2cats and #fotogenerator. Note that these applications are creative projects, were not obtained in controlled, scientific conditions, and may rely on some modifications to the pix2pix code we released. Nonetheless, they demonstrate the promise of our approach as a generic commodity tool for image-to-image translation problems." Efros, A. Isola, P. Zhou, T. Zhu J-Y. *Image-to-image translation with Conditional Adversarial* <https://arxiv.org/pdf/1611.07004.pdf> (accessed 4.3.18 / 14:51)

⁸ Efros, A. Isola, P. Zhou, T. Zhu J-Y. *Image-to-image translation with Conditional Adversarial networks*: Berkeley AI Research (BAIR) Laboratory, UC Berkeley
accessed via: <https://arxiv.org/abs/1611.07004> (accessed 4.3.18 / 13:16)

⁹ It would be more accurate to say 'how knowledge might be built in this context'.

¹⁰ I was recently out walking in the woods with a friend and we were discussing the merits of my *Sperry* duck boots. When we returned home he showed me the Facebook interface on his smart phone. In the advertising column a range of duck boots and related waterproof products had appeared, as if by magic. For me this was a new and marvelous phenomenon. He went on to tell me how this had happened to him on a number of occasions and it was clearly no coincidence. In the context of this discussion, and considering the proliferation of IOT augmented devices, including the ability that smartphones appear to have to listen to and interpret your verbalized whims and desires – it seems plausible to anticipate that this capacity to harvest and interpret data derived from everything that we do and think, could be used to develop a virtual, creative persona. If an algorithm can learn to become a dynamic and evolving 'creative', and the IOT hardware is integrated in to almost everything that we

fotogenerator and (by comparison) trendlist.org could start to reproduce an understanding of the experiences, decisions, judgement, cognitive latitudes, wild thoughts, random moments of inspiration, tastes and styles etc. of organic Illustrators. Reproduce may be the wrong word, originate might be better. And if or when that happens then we have a low to negative cost alternative to messy meat units.

But this is science fiction isn't it? Our organic creativity is unassailable.

V-OW! Cation.

“(The)Vocational level of job was calculated using OSCR. The results were calculated by giving each subject an occupation-subject concentration ratio (OSCR) – a percentage indicating how “vocational” the subject is, so how likely the students are to go into a career related to their degree.

This was calculated by looking at how many graduates go on to be employed in one of the three most common highly skilled occupations associated with the subject they took at university. Data was only used based on students' first degrees, so not postgraduate degrees and not second undergraduate degrees...Design studies had an OSCR rating of 26%, meaning just over a quarter of students are likely to go into a highly-skilled, related career, while medicine and dentistry had a rating of 99%, meaning nearly all graduates are likely to go into a related career.”¹¹

Ow indeed! This damning statistic ought to strike fear in the hearts of creative Institutions. If word gets out that a degree in Illustration only gives you a one in four chance of getting a job *in Illustration* then we are all doomed! Of course the OSCR is a blunt tool and preferences education to employment routes such as medicine and dentistry precisely because they are vocational, there is a predictable (and presumably almost guaranteed?) terminal employment point. The idea that a job¹², in the conventional sense, is waiting for an Illustration graduate is flawed. This, I would claim, is well known and accepted by Institutions and students alike. Given the level of applications in the UK for Design related courses it does not seem to be a significant barrier to prospective students who want to study through this discipline¹³. However, the employment landscape for Illustrators has evolved radically over the last fifteen years. This is in part due to the ubiquity of the internet as a self-promotional space and the possibilities afforded by (largely visual) social network platforms such as Instagram. Opportunities to develop niche markets have also increased exponentially and Illustrators generally have embraced the prospects afforded by PayPal, Etsy and the like. These, though, are difficult and unpredictable waters to navigate – beyond the conventional, transactional existence of freelance Illustration work, the wild west of platform¹⁴ based entrepreneurialism offers promise

hold/wear/use/do, we, the user, may only need to express a vague notion of what we want *or feel*, leaving the code take the strain.

¹¹ Sarah Dawood. February 6th, 2017, 5:52pm <https://www.designweek.co.uk/issues/12-18-february-2018/design-popular-university-choice-graduates-arent-ending-designers/> (accessed 3.3.18 / 07:57)

¹² job¹ |dʒɒb| noun. 1 a paid position of regular employment:

¹³ 18, 815 acceptances on to UK Design Studies courses in 2017. End of Cycle 2017 Data Resources: DR3_015_01. UCAS Analysis and Research, published on Thursday 14 December 2017 at www.ucas.com.

¹⁴ For more on the realities of Platform Capitalism read Nick Srnicek's extensive and brilliant analysis in the book of the same name. <http://eprints.lse.ac.uk/80352/1/blogs.lse.ac.uk-Book%20Review%20Platform%20Capitalism%20by%20Nick%20Srnicek.pdf>

and disappointment in equal measure and cannot, I would argue, be relied upon to either provide financially or capitalize on the core competencies and skills developed through disciplinary education. Indeed, the normalization¹⁵ of entrepreneurialism raises some interesting questions about the role of online platforms in reifying the ideologies of neoliberalism, situating those concepts inside narratives of self-actualization that are beginning to dominate Illustration communities, probably out of dire necessity. It is possible to witness this phenomenon in the proliferation of 'process' videos and autobiographical creative exposés available online. In a recent conversation with final year undergraduate students that revolved around the relationship between processes and products and the inherent values of both, the consensus in the group was that their (the students) process was as viable a commodity as the produced artefact. This was presented by the students as a normal/natural aspect of their 'offer' as commercial creative practitioners. Most striking was the acceptance of the neoliberal paradigm as immutable¹⁶, with no distinction between the public and private in their practice - perhaps the inevitable consequence of an entire lifetime experienced simultaneously off and online.

In this context we see an emerging paradox - if the conventional options for employment, in the case of Illustration mainly freelance and commission based, are gradually beginning to contract whilst the number of graduates educated through the discipline increases year on year then where to go and what to do? How can we start to re-consider applications for the inherent 'values' in the processes of education associated with the discipline? As previously stated, one option might be to view all aspects of the creative process as commodity. This is a potentially reductive approach, because of the tendency in commercial practice to replicate successful formulae. There is no reason to suspect that in the realms of the commodified self this would be any different. Pursuing that logic, it is possible to imagine an (online) atmospheric pressure to behave and/or perform as a practitioner in a manner that is 'sellable'. In educational spaces these tautological behaviours and acts of mimesis could become confused with the legitimate and necessary acquisition of professional skills and attempts to enable students to transcend these limitations through pedagogic innovations might result in mistrust and anxiety that the worth of the experience has been compromised by Institutional and/or intellectual ideological drivers.¹⁷

What did you say?

Understanding value and worth in learning experiences then is problematic at best. Attempting to frame these qualities in ways that are comprehensible and achieve sufficient universality often results in nebulosity or inadvertent vernacularization.

¹⁵ Normalization here referring to the bringing of 'workers' to a state of *normality* as determined by an organization and/or dominant paradigm or culture – this may be understood in terms of the workers' journey towards self-actualization (Maslow. https://en.wikipedia.org/wiki/Maslow's_hierarchy_of_needs) and manipulated subjectivity. In other words, that the mechanisms of reflexive modernity, the narratives of flexibility, occupational socialization, self-organization, excellence – described as 'discourses of the work place' (Zemblyas) – are contributing towards the control of the subjectivity of the worker. That these forces enacted on the worker and therefore the student 'worker' or she/he who engages in work based learning contribute towards a revised subjectivity, a way of thinking and behaving that synthesizes the organisational aims, where the subject implicitly understands them in terms of their own explicit desire for self fulfilment.

¹⁶ William Deresiewicz talks extensively (and critically) about the rapid rise of an entrepreneurial 'spirit' in creative practitioners in his article for the New York Times Sunday Review entitled Generation Sell. <http://www.nytimes.com/2011/11/13/opinion/sunday/the-entrepreneurial-generation.html>.

¹⁷ This anonymous, extended piece by a recent graduate from Norwich University of the Arts makes clear some of the difficulties encountered by students and attempts to confront perceived inequities and flaws in the Institutional approaches and systems. <https://medium.com/@anonartboy/nua-a-graduates-account-249cb5be6819> (accessed 8.3.18 / 17:54)

Well intentioned attempts to develop languages that aim to adequately capture some of the underlying cognitive and metacognitive methods which underpin creative practice are manifold. Universities, think tanks and trade organizations regularly attempt this task with varying degrees of success¹⁸. Of the versions that I have seen there is a substantial degree of overlap and it is apparent that, despite the differences in nomenclature, similar kinds of things are being said. But it is important to remember that what is being developed is a variant of Institutional language. For instance, according to the World Economic Forum (WEF)¹⁹ of the 'Top 10 Skills required in 2020' the first three are: *Complex Problem Solving*, *Critical Thinking* and *Creativity*²⁰. Accepting for the moment the voracity of the WEF's practice descriptors I think that it would be fair to say that most Design education would lay claim to these attributes as fundamental to the successful enactment of their disciplines. Illustration is no exception. However, I would suggest that there is a communication gap emerging as Illustrators attempt to articulate their particular creative qualities beyond a professional or Institutional bubble. There is some further suggestion that communities of shared interest, which have grown in number with the expansion of the internet, are exacerbating this linguistic shortfall. Put simply, and in my experience, graduating Illustrators struggle to find ways of effectively communicating the tacit but vital intellectual and practical processes they deploy when developing and executing a project. Viewed in the context of the rapidly changing professional terrain this is a challenge that needs to be met urgently.

As educators our ability to bring the discussion to the studios, lecture theatres, seminar rooms and cafeterias; in short to foreground the matters that will affect the work lives of our graduating students, will be increasingly important. Specifically, the 'known unknowns' of wide scale Automation, Artificial Intelligence, the normalization of self- entrepreneurship and the stagnation/contraction of conventional Illustration 'employment'. Identifying and articulating the high value capabilities of creative practitioners, as well as meaningfully excavating the true potential of Illustration practice will need to become the *sine qua non* of contemporary Illustration education. This short paper has not attempted to define what form that process could or should take, more rallying call than manifesto it is aimed at the fractures in the present that suggest potential futures. The hope is that by suggesting we open up a space to bear witness to some of the potential future possibilities of Illustration educational practice now, we might lay the foundation for a more expanded, reflexive and sustainable discipline in the future. It's a stab at viral intervention, what Srnicek and Williams might call a Hyperstition – an antidote to the latent, enviro-techno-socio traumas, a doomjolt-ante.

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¹⁸ University of the Arts London (UAL) has its own set of descriptors called the Creative Attributes Framework (CAF). CAF comprises of three categories each containing three descriptors: 1. Making Things Happen: Proactivity, Enterprise and Agility. 2. Showcasing abilities and accomplishments with others: communication, connectivity and Storytelling. 3. Life-wide Learning: Curiosity, Self-Efficacy, Resilience.

¹⁹ Data and descriptors are derived from a number of significant reports including WEF's *New Vision for Education: Fostering Social and Emotional Learning Through Technology* and *The Future of Jobs*. Both reports can be accessed here: <https://www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students/>

²⁰ For the complete list see: <https://www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students/>

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