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DIGITAL TECHNO VIAXIVIALISVI WAXIVIALISVI

NOW WE CAN DO ALMOST EVERYTHING, BUT SHOULD WE WANT TO?

This project was developed as a part of Project I, Master's degree in Communication Design, 2022/2023.
Faculty of Fine- Arts of ULisboa.



ABSTRACT +

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/ABSTRACT

In this publication we seek to find the duality between post-digital and techno solutionism. Despite understanding that when we speak of post-digital we're actually refering to the times that we currently live in: the age where technology usage comes as an antecipated resource and as inteligent process in order to respond to our needs. Techno solutionism is the reflexion and natural response of these exact times. Which bears the question: Does technology solve all our problems?

"This is a world of anticipatory technology and contextual computing that uses smart diffused computational processing to create a fine web of computational resources that are embedded into the material world. Thus, the historical distinction between the digital and the non-digital becomes increasingly blurred, to the extent that to talk about the digital presupposes an experiential disjuncture that makes less and less sense." - David Berry (2014).



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" POST-DIGITAL, ONCE UNDERSTOOD AS A CRITICAL REFLECTION OF "DIGITAL" AESTHETIC IMMATERIALISM, NOW DESCRIBES THE MESSY AND PARADOXICAL CONDITION OF ART AND MEDIA AFTER DIGITAL TECHNOLOGY REVOLUTIONS. "POST-DIGITAL" NEITHER RECOGNIZES THE DISTINCTION BETWEEN "OLD" AND "NEW" MEDIA, NOR IDEOLOGICAL AFFIRMATION OF THE ONE OR THE OTHER. IT MERGES "OLD" AND "NEW", OFTEN APPLYING NETWORK CULTURAL EXPERIMENTATION TO ANALOG TECHNOLOGIES WHICH IT REINVESTIGATES AND RE-USES. IT TENDS TO FOCUS ON THE EXPE-RIENTIAL RATHER THAN THE CONCEPTUAL. IT LOOKS FOR DIY AGENCY OUTSIDE TOTALITARIAN INNOVATION IDEOLOGY, AND FOR NETWORKING OFF BIG DATA CAPITALISM.AT THE SAME TIME, IT ALREADY HAS BECOME COMMERCIALIZED."

POST-DIGITAL: A TERM THAT SUCKS BUT IS USEFUL

- DIGRESSION:WHAT IS *DIGITAL*, WHAT IS ANALOG? ANALOG = UNDIVIDED,ANALOG ≠ NON-COMPUTATIONAL POST-DIGITAL = AGAINST THE UNIVERSAL MACHINE

 - 01.4
- = 'OLD' MEDIA USED LIKE 'NEW MEDIA' 01.5

Design, David M. Berry and Michael "What Is 'Post-digital'?". Post-digital Dieter (eds.), pp. 12-26, Hampshire; new York: Palgrave Macmillan. Aesthetics: Art, Computation and

01.1 /POST-DIGITAL:A TERM THAT SUCKS BUT IS USEFUL

DISENCHANTMENT WITH "DIGITAL"

I was first introduced to the term 'post-digital' in 2007 by my then-student Marc Chia now Tara Transitory, also performing under the moniker One Man Nation. My first reflex was to dismiss the whole concept as irrelevant in an age of cultural, social and economic up heavals driven to a large extent by computational digital technology.

> Today, in the age of ubiquitous mobile devices, drone wars and the gargantuan data operations of the NSA, Google and other global players, the term may seem even more questionable than it did in 2007: as either a sign of ignorance of our contemporary reality, or else of some deliberate Thoreauvian-Luddite withdrawal from this reality.



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More pragmatically, the term 'postdigital' can be used to describe either a contemporary disenchantment with digital information systems and media gadgets, or a period in which our fascination with these systems and gadgets has become historical just like the dot-com age ultimately became historical in the 2013 novels of Thomas Pynchon and Dave Eggers. After Edward Snowden's disclosures of the NSA's all-pervasive digital surveillance systems, this disenchantment has quickly grown from a niche 'hipster' phenomenon to a mainstream position one which is likely to have a serious impact on all cultural and business practices based on networked electronic devices and Internet services.

REVIVAL OF 'OLD' MEDIA

While a Thoreauvian-Luddite digital with drawal may seem a tempting option for many, it is fundamentally a naïve position, particularly in an age when even the availability of natural resources depends on global computational logistics, and intelligence agencies such as the NSA intercept paper mail as well as digital communications. In the context of the arts, such a withdrawal seems little more than a rerun of the 19th-century Arts and Crafts movement, with its programme of handmade production as a means of resistance to encroaching industrialisation.

Such (romanticist) attitudes undeniably play an important role in today's renaissance of artists' printmaking, handmade film labs, limited vinvl editions, the rebirth of the audio cassette. mechanical typewriters, analog cameras and analog synthesisers. An empirical study conducted by our research centre. Creating 010 in Rotterdam among Bachelor students from most of the art schools in the Netherlands indicated that contemporary young artists and designers clearly prefer working with non-electronic media: given the choice, some 70% of them "would rather design a poster than a website" (Van Meer, 14). In the Netherlands at least, education programmes for digital communication design have almost completely shifted from art academies to engineering schools, while digital media are often dismissed as commercial and mainstream by art students (Van Meer,5). Should we in turn dismiss their position as romanticist and neo-Luddite?

POST-DIGITAL: A TERM THAT SUCKS BUT IS USEFUL

DIGRESSION:WHAT IS DIGITAL, WHAT IS ANALOG? ANALOG = UNDIVIDED,ANALOG ≠ NON-COMPUTATIONAL

01.4

= AGAINST THE UNIVERSAL MACHINE POST-DIGITAL

MEDIA USED LIKE 'NEW MEDIA' 01.5

Design, David M. Berry and Michael Dieter (eds.), pp. 12-26. Hampshire; new York: Palgrave Macmillan. "What Is 'Post-digital'?". Post-digital Aesthetics: Art, Computation and

01.2 **/POST-WHAT?**

POST-DIGITAL=POSTCOLONIAL: POSTDIGITAL # POST-HISTOIRE

On closer inspection however, the dichotomy between digital big data and neo-analog do-it-yourself (DIY) is really not so clearcut. Accordingly, 'post-digital' is arguably morethan just a sloppy descriptor for a contemporary (and possibly nostalgic) cultural trend. It is an objective fact that the age in which we now live is not a post-digital age, neitherin terms of technological developments with no end in sight to the trend towards further digitisation and computerisation - nor from a historico-philosophical perspective. Regarding the latter, Cox offers a valid critique of the "periodising logic" embedded in the term 'post-digital', which places it in the dubious company of other historico philosophical 'post'-isms, from postmodernism to post-histoire.

However, 'post-digital' can be defined more pragmatically and meaning fully within popular cultural and colloquial frames of reference. This applies to the prefix 'post' as well as the notion of 'digital'.

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JOHN PREFIX

'POST' SHOULD NOT BE UNDERS—
TOOD HERE IN THE SAME SENSE
AS POSTMODERNISM AND
POST—HISTOIRE, BUT RATHER
IN THE SENSE OF POST—PUNK (A
CONTINUATION OF PUNK CULTURE
IN WAYS WHICH ARE SOMEHOW
STILL PUNK, YET ALSO
BEYOND PUNK);

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post-communism (as the o going social-political reality in former Eastern Bloc countries); post-feminism (as a critically revised continuation of feminism, with blurry boundaries with 'traditional', unprefixed feminism); postcolonialism (see next paragraph); and, to a lesser extent, post-apocalyptic (a world in which the apocalypse is not over, but has progressed from a discrete breaking point to an ongoing condition — in Heideggerian terms, from Ereignis to Being — and with a contemporary popular iconography pioneered by the Mad Max films in the 1980s).

None of these terms — post-punk, post-communism, post-feminism, postcolonialism, post-apocalyptic — can be understood in a purely Hegelian sense of an inevitable linear progression of cultural and intellectual history. Rather, they describe more subtle cultural shifts and ongoing mutations. Postcolonialism does not in any way mean an end of colonialism (akin to Hegel's and Fukuyama's "end of history"), but rather its mutation into new power structures, less obvious but no less pervasive, which have a profound and lasting impact on languages and cultures, and most significantly continue to govern geopolitics and global production chains.

In this sense, the post-digital condition is a post-apocalyptic one: the state of affairs after the initial upheaval caused by the computerisation and global digital networking of communication, technical infrastructures, markets and geopolitics.

'DIGITAL' = STERILE HIGH TECH?

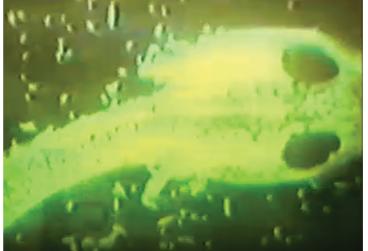
Also, the 'digital' in 'post-digital' should not be understood in any technical-scientific or media-theoretical sense, but rather in the way the term is broadly used in popular culture — the kind of connotation best illustrated by a recent Google Image Search result for the word 'digital':

The first thing we notice is how the term 'digital' is, still in 2013, visually associated with the colour blue. Blue is literally the coolest colour in the colour spectrum

(...)The simplest definition of 'post-digital' describes a media aesthetics which opposes such digital high-tech and high-fidelity cleanness. The simplest definition of 'post--digital' describes a media aesthetics which opposes such digital high-tech and highfidelity cleanness. The term was coined in 2000 by the musician Kim Cascone, in the context of glitch aesthetics in contemporary electronic music (Cascone, 12). Also in 2000, the Australian sound and media artist Ian Andrews used the term more broadly as part of a concept of "post-digital aesthetics" which rejected the "idea of digital progress "as well as" a teleological movement toward 'perfect'representation"(Andrews).



Coldwar
Ian Andrews (2011)
technofear and scientific terror.
A humorous look at the
psuedo-scientific and
psuedo-philosophical
discourse of 1950s B
grade sci-fi and catastrophy films.
An assemblage of "found"
concrete poetry and
recombinant
images.





Radiant
Ian Andrew (2006)

<u>Chloroform</u>, Ian Andrews (1985)

Compilation of early video and film experiments. screenings: Video Dome, Sydney, Nov 1988. Ear Nerve 2, Naples, 21/4/89.

'DIGITAL' = LOW-QUALITY TRASH?

There is a peculiar overlap between on one hand a post-digital rejection of digital high tech, and on the other hand a post-digital rejection of digital low quality.

Consider for example the persisting argument that vinyl LPs sound better than CDs (let alone MP3s); that film photography looks better than digital photography (let alone smartphone snapshots); that35mm film projection looks better than digital cinema projection (let alone BitTorrent video downloads or YouTube); that paper books are a richer medium than websites and e-books; and that something typed on a mechanical typewriter has more value than a throwaway digital text file (let alone e-mail spam).

In fact, the glitch aesthetics advocated by Cascone as 'post-digital' are precisely the same kind of digital trash dismissed by 'post-digital' vinyl listeners. IN FACT,
THE GLITCH AESTHETICS
ADVOCATED BY CASCONE AS
'POST-DIGITAL' ARE PRECISELY
THE SAME KIND OF DIGITAL
TRASH DISMISSED
BY 'POST-DIGITAL'
VINYL
LISTENERS.

01.3 /DIGRESSION: WHAT IS DIGITAL,

WHAT IS ANALOG?

POST-DIGITAL: A TERM THAT SUCKS BUT IS USEFUL

01.3 01.4

DIGRESSION:WHAT IS DIGITAL, WHAT IS ANALOG?ANALOG = UNDIVIDED,ANALOG # NON-COMPUTATIONAL

= AGAINST THE UNIVERSAL MACHINE

POST-DIGITAL

MEDIA USED LIKE 'NEW MEDIA' 01.5

Design, David M. Berry and Michael 'What Is 'Post-digital'?". Post-digital Dieter (eds.), pp. 12-26, Hampshire; new York: Palgrave Macmillan. Aesthetics: Art, Computation and Cramer, Florian. 2015.

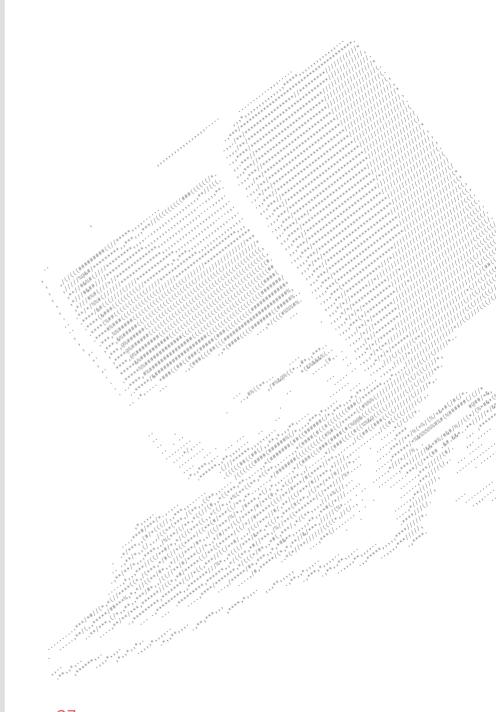
(...) of view, Cascone's use of the word 'digital' was inaccurate. This also applies to most of what is commonly known as 'digital art', 'digital media' and 'digital humanities'. Something can very well be 'digital' without being electronic, and without involving binary zeroes and ones. It does not even have to be related in any way to electronic computers or any other kind of

computational device. Conversely, 'analog' does not necessarily mean non-computational or pre--computational. There are also analog computers. Using water and two measuring cups to compute additions and subtractions — of quantities that can't be counted exactly is a simple example of analog computing.

'Digital' simply means that something is divided into discrete, countable units — countable using whatever system one chooses, whether zeroes and ones, decimal numbers, tally marks on a scrap of paper, or the fingers (digits) of one's hand — which is where the word 'digital' comes from in the first place; in French, for example, the word is 'numérique'.



Consequently, the Roman alphabet is a digital system; the movable types of Gutenberg's printing press constitute a digital system; the keys of a piano are a digital system; Western musical notation is mostly digital, with the exception of instructions with non-discrete values such as adagio, piano, forte, legato, portamento, tremolo and glissando. Floor mosaics made of monochrome tiles are digitally composed images. As all these examples demonstrate, 'digital' information never exists in a perfect form, but is instead an idealised abstraction of physical matter which, by its material nature and the laws of physics, has chaotic properties and often ambiguous states.(...)



'What Is 'Post-digital'?". Post-digital

Aesthetics: Art, Computation and

POST-DIGITAL: A TERM THAT SUCKS BUT IS USEFUL

ANALOG = UNDIVIDED, ANALOG # NON-COMPUTATIONAL POST-DIGITAL 01.4

MEDIA USED LIKE 'NEW MEDIA' AGAINST THE UNIVERSAL MACHINE 01.5

Design, David M. Berry and Michael 01.4 /ANALOG=UNDIVIDED; ANALOG Dieter (eds.), pp. 12-26. Hampshire; **≠NON-COMPUTATIONAL** new York: Palgrave Macmillan.

Conversely, 'analog' means that the information has not been chopped up into discrete, countable units, but instead consists of oneor more signals which vary on a continuous scale, such as a sound wave, a light wave, a magnetic field (for example on an audio tape, but also on a computer hard disk), the flow of electricity in any circuit including a computer chip, or a gradual transition between colours, for example in blended paint. (Goodman, 160) therefore defines analog as "undifferentiated in the extreme" and "the very antithesis of a notational system".

> The fingerboard of a violin is analog: it is fretless, and thus undivided and continuous. The fingerboard of a guitar, on the other hand, is digital: it is divided by fretsinto discrete notes. What is commonly called 'analog' cinema film is actually a digital analog hybrid: the film emulsion is analog, since its particles are undifferentiated blobs ordered organically and chaotically, and thus not reliably countable in the way that pixels are. (...)

> However, the concept of 'post-digital' as defined by Cascone ignored such technical scientific definitions of 'analog' and 'digital' in favour of a purely colloquial understanding of these terms.

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POST-DIGITAL: A TERM THAT SUCKS BUT IS USEFUL

01.3

DIGRESSION:WHAT IS DIGITAL, WHAT IS ANALOG? ANALOG = UNDIVIDED,ANALOG ≠ NON-COMPUTATIONAL

01.4

POST-DIGITAL = AGAINST THE UNIVERSAL MACHINE

'OLD' MEDIA USED LIKE 'NEW MEDIA' 01.5

Design, David M. Berry and Michael "What Is 'Post-digital'?". Post-digital Dieter (eds.), pp. 12-26, Hampshire; new York: Palgrave Macmillan. Aesthetics: Art, Computation and

01.5 /POST-DIGITAL = AGAINST THE **UNIVERSAL MACHINE**

Proponents of 'post-digital' attitudes may reject digital technology as either sterile high tech or low-fidelity trash. In both cases, they dismiss the idea of digital processing as the sole universal all-purpose form of information processing. Consequently, they also dismiss the notion of the computer as the universal machine, and the notion of digital computational devices as all-purpose media. Prior to its broad application in audiovisual signal processing and as the core engine of mass-media consumer technology, computation had been used primarily as a means of audio-visual composition.

> For example, Philips ran a studio for contemporary electronic music in the 1950s, before co-developing the audio CD in the early 1980s. By this time, audio-visual computing had shifted from being primarily a means of production, to a means of reproduction.

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Conversely, Cascone's 'post-digital' resistance to digital high-tech reproduction echoed older forms of 17 resistance to formalist, mathematically-driven narratives of progress in music production and composition — particularly the opposition to serialist composition in 20th-century contemporary music, which began with John Cage, continued with the early minimal music of La Monte Young and Terry Riley, and was further developed by improvisation/composition collectives such as AMM, Musica Elettronica Viva and Cornelius Cardew's Scratch Orchestra. After all, the serialism of Stockhausen, Boulez and their contemporaries was 'digital' in the most literal sense of the word: it broke down all parameters of musical composition into computable values which could then be processed by means of numerical transformations.

Yet most serialist music was not electronic, but composed with pen and paper and performed by orchestras.

THIS

DEMONSTRATES
ONCE AGAIN A CRUCIAL ISSUE: UNLIKE
THE COLLOQUIAL MEANING OF THE TERM
'DIGITAL' AS COMMONLY USED IN THE
ARTS AND HUMANITIES, THE TECHNICAL—
SCIENTIFIC NOTION OF 'DIGITAL' CAN,
PARADOXICALLY ENOUGH, BE USED TO
DESCRIBE DEVICES WHICH WOULD BE
CONSIDERED 'ANALOG' OR
'POST-DIGITAL' IN THE ARTS
AND HUMANITIES.

POST-DIGITAL: A TERM THAT SUCKS BUT IS USEFUL

DIGRESSION:WHAT IS DIGITAL, WHAT IS ANALOG? ANALOG = UNDIVIDED,ANALOG ≠ NON-COMPUTATIONAL

= AGAINST THE UNIVERSAL MACHINE

01.4

POST-DIGITAL

'OLD' MEDIA USED LIKE 'NEW MEDIA' WHAT, THEN IS 'POST-DIGITAL'? 01.5

Design, David M. Berry and Michael "What Is 'Post-digital'?". Post-digital Dieter (eds.), pp. 12-26, Hampshire; new York: Palgrave Macmillan. Aesthetics: Art, Computation and

01.6 /WHAT, THEN, IS 'POST-DIGITAL'?

POST-DIGITAL = POST-DIGITISATION

Returning to Cascone and Andrews, but also to post-punk, postcolonialism and Mad Max, the term 'post-digital' in its simplest sense describes the messy state of media, arts and design after their digitisation (or at least the digitisation of crucial aspects of the channels through which they are communicated). Sentiments of disenchantment and scepticism may also be part of the equation, though this need not necessarily be the case sometimes, 'post-digital' can in fact mean the exact opposite. Contemporary visual art, for example, is only slowly starting to accept practitioners of net art as regular contemporary artists — and then again, preferably those like Cory Arcangel whose work is white cubecompatible. Yet its discourse and networking practices have been profoundly transformed by digital media such as the e-flux mailing list, art blogs

and the electronic e-flux journal.(...)

In terms of circulation, power and influence, these media have largely superseded printed art periodicals, at least as far as the art system's in-crowd of artists and curators is concerned.(...)

POST-DIGITAL = ANTI-'NEW MEDIA'

'Post-digital' thus refers to a state in which the disruption brought upon by digital information technology has already occurred. This can mean, as it did for Cascone, that this technology is no longer perceived as disruptive. Consequently, 'post-digital' stands in direct opposition to the very notion of 'new media'(...)

(...)the prefix 'post', one cannot help but wonder about a previous lack of such critical thinking regarding the older (yet no less Hegelian) term 'new media'.

POST-DIGITAL = HYBRIDS OF 'OLD' AND 'NEW' MEDIA

'Post-digital' describes a perspective on digital information technology which no longer focuses on technical innovation or improvement, but instead rejects the kind of techno-positivist innovation narratives exemplified by media such as Wired magazine, Ray Kurzweil's Googlesponsored 'singularity'movement, and of course Silicon Valley. Consequently, 'post-digital' eradicates the distinction between 'old' and 'new' media, in theory as well as in practice. Kenneth Goldsmith notes that his students "mix oil paint while Photoshopping and scour fleamarkets for vintage vinyl while

listening to their iPods" (...) Lo-fi imperfections are embraced — the digital glitch and jitter of Cascone's music along with the grain, dust, scratches and hiss in analog reproduction— as a form of practical exploration and research that examines materials through their imperfections and malfunctions.

It is a post-digital hacker attitude of taking systems apart and using them in ways which subvert the original intention of the design.

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Echolocation Headphones, Aisen Caro Cachin (2012)

"Echolocation Headphones is a project that studies new applications for parametric sound technologies." -aisen.caro.com

POST-DIGITAL = RETRO?

No doubt, there is a great deal of overlap between on one hand post-digital mimeograph printmaking, audio cassette production, mechanical typewriter experimentation and vinyl DJing, and on the other hand various hipster-retro media trends — including digital simulations of analog lo-fi in popular smartphone apps such as Instagram, Hipstamatic and iSupr8. But there is a qualitative difference between simply using superficial and stereotypical ready-made effects, and the thorough discipline and study required to make true 'vintage' media work, driven by a desire for non-formulaic aesthetics. Still, such practices can only be meaningfully called 'post-digital' when they do not merely revive older media technologies, but functionally repurpose them in relation to digital media technologies: zines that become anti-blogs or non-blogs, vinyl as anti-CD, cassette tapes as anti-MP3, analog film as anti-video.

POST-DIGITAL: A TERM THAT SUCKS BUT IS USEFUL

DIGRESSION:WHAT IS DIGITAL, WHAT IS ANALOG? ANALOG = UNDIVIDED,ANALOG ≠ NON-COMPUTATIONAL

01.4

01.5

= AGAINST THE UNIVERSAL MACHINE POST-DIGITAL

THEN IS 'POST-DIGITAL'?

= 'OLD' MEDIA USED LIKE 'NEW MEDIA' /POST-DIGITAL

Design, David M. Berry and Michael "What Is 'Post-digital'?". Post-digital Dieter (eds.), pp. 12-26. Hampshire; Aesthetics: Art, Computation and new York: Palgrave Macmillan.

Cramer, Florian. 2015.

01.7 POST-DIGITAL = 'OLD' MEDIA **USED LIKE 'NEW MEDIA'**

At the same time, new ethical and cultural conventions, which became mainstream with Internet communities and Open Source culture are being retroactively applied to the making of non-digital and post-digital media products. A good example of this are collaborative zine conventions, a thriving subculture documented on the blog fanzines.tumblr. com and elsewhere. These events, where people come together to collectively create and exchange zines (i.e. small-circulation, self-published magazines, usually focusing on the maker's cultural and/or political areas of interest), are in fact the exact opposite of the 'golden age' zine cultures of the post-punk 1980s and 1990s, when most zines were the hyper-individualistic product and personality platforms of one single maker. If we were to describe a contemporary zine fair or mimeography community art space using Lev Manovich's new media taxonomy of 'Numerical Representation', 'Modularity', 'Automation', 'Variability' and 'Transcoding' (Manovich, The Language of New Media, 27-48), then 'Modularity', 'Variability' and — in a more loosely metaphorical sense — 'Transcoding' would still apply to the contemporary cultures working with these 'old' media.

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CASES, THE TERM
'POST-DIGITAL' USEFULLY
DESCRIBES 'NEW MEDIA'CULTURAL APPROACHES
TO WORKING WITH
SO-CALLED 'OLD
MEDIA'.

SOLUTIONISM

02.2

/*SOLUTIONISM* AND 1T'S DISCONTENTS /THE WILL TO IMPROVE (JUST ABOUT EVERYTHING!)

To save everything click here" The folly of technological solutionism Evgeny Morozov's. 2013.

"Com plexity is a solvable problem in the right hands." - Jeff Jarvis

critical perspective.

02.1 INTRODUCTION

Silicon Valley is guilty of many sins, but lack of ambition is not one of them. If you listen to its loudest apostles, Silicon Valley is all about solvingproblems that someone else—perhaps the greedy bankers on Wall Street or the lazy know-nothings in Washington—have created. "Technology is not really about hardware and software any more. It's really about the mining and use of this enormous data to make the world a better place," Eric Schmidt, Google's executive chairman, told an audience of MIT students in 2011. Facebook's Mark Zuckerberg, who argues that his company's mission is to "make the world more open and connected," concurs. "We don't wake up in the morning with the primary goal of making money," he proclaimed just a few months before his company's rapidly plummeting stock convinced all but its most die-hard fans that Facebook and making money had parted ways long ago. What, then, gets Mr. Zuckerberg out of bed? As he told the audience of the South by Southwest festival in 2008, it's the desire to solve global problems.

> "There are a lot of really big issues for the world to get solved and, as a company, what we are trying to do is to build an infrastructure on top of which to solve some of these problems," announced Zuckerberg.

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In the last few years, Silicon Valley's favorite slogan has quietly changed from "Innovate or Die!" to "Ameliorate or Die!" In the grand scheme of things, what exactly is being improved is not very important; being able to change things, to get humans to behave in more responsible and sustainable ways, to maximize efficiency, is all that matters. Half-baked ideas that might seem too big even for the naïfs at TED Conferences—that Woodstock of the intellectual effete—sit rather comfortably on Silicon Valley's business plans. "Fitter, happier, more productive"

—the refreshingly depressive motto of the popular Radiohead song from the mid-1990s—would make for an apt welcome sign in the corporate headquarters of its many digital mavens. Technology can make us better—and technology will make us better. Or, as the geeks would say, given enough apps, all of humanity's bugs are shallow. California, of course, has never suffered from a deficit of optimism or bluster.

And yet, the possibilities opened up by latest innovations make even the most pragmatic and down-to-earth venture capitalists reach for their wallets. After all, when else will they get a chance to get rich by saving the world? What else would give them the thrill of working in a humanitarian agency (minus all the bureaucracy and hectic travel, plus a much better compensation package)?

THIS AMELIORATION

ORGY END? WILL IT ACTUALLY
ACOMPLISH ANYTHING? ONE
WAY TO FIND OUT IS TO PUSH
SOME OF THESE NASCENT
IMPROVEMENT EFFORTS TO
THEIR ULTIMATE
CONCLUSIONS.

If Silicon Valley had a designated futurist, her bright vision of the near future — say, around 2020 or so — would itself be easy to predict. It would go something like this: Humanity, equipped with powerful self-tracking devices, finally conquers obesity, insomnia, and global warming as everyone eats less, sleeps better, and emits more appropriately. The fallibility of human memory is conquered too, as the very same tracking devices record and store everything we do. Car keys, faces, factoids: we will never forget them again. No need to feel nostalgic, Proust-style, about the petite madeleines you devoured as a child; since that moment is surely stored somewhere in your smartphone—or, more likely, your smart, all-recording glasses—you can stop fantasizing and simply rewind to it directly. In any event, you can count on Siri, Apple's trusted voice assistant, to tell you the truth you never wanted to face back then: all those madeleines dramatically raise your blood glucose levels and ought to be avoided. Sorry, Marcel!

Politics, finally under the constant and far-reaching gaze of the electorate, is freed from all the sleazy corruption, backroom deals, and inefficient horse trading. Parties are disaggregated and replaced by Groupon-like political campaigns, where users come together—once—to weigh in on issues of direct and immediate relevance to their lives, only to disband shortly afterward. Now that every word—nay, sound—

ever uttered by politicians is recorded and stored for posterity, hypocrisy has become obsolete as well. Lobbyists of all stripes have gone extinct as the wealth of data about politicians—their schedules, lunch menus, travel expenses—are posted online for everyone to review. As digital media make participation easier, more and more citizens ditch bowling alone—only to take up blogging together. Even those who've never bothered to vote in the past are finally provided with the right incentives—naturally, as a part of an online game where they collect points for saving humanity—and so they rush to use their smartphones to "check in" at the voting booth. Thankfully, getting there is no longer a chore; selfdriving cars have been invented for the purpose of getting people from place to place. Streets are clean and shiny; keeping them that way is alsopart of an elaborate online game. Appeals to civic duty and responsibility to fellow citizens have all but disappeared—and why wouldn't they, when getting people to do things by leveraging their eagerness to earn points, badges, and virtual currencies is so much more effective?

Crime is a distant memory, while courts are overstaffed and underworked. Both physical and virtual environments —walls, pavements,doors, log-in screens —have become "smart." That is, they have integrated the plethora of data generated by the self-tracking devices and socialnetworking services so that now they can predict and prevent criminal behavior simply by analyzing their users. And as users don't even have the chance to commit crimes, prisons are no longer needed either. A triumph of humanism, courtesy of Silicon Valley.

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In this book, I have no such luxury, and I question both the means and the ends of Silicon Valley's latest quest to "solve problems." I contend here that Silicon Valley's promise of eternal amelioration has blunted our ability to do this questioning. Who today is mad enough to challenge the virtues of eliminating hypocrisy from politics? Or of providing more information—the direct result of self-tracking—to facilitate decision making? Or of finding new incentives to get people interested in saving humanity, fighting climate change, or participating in politics? Or of decreasing crime? To question the appropriateness of such interventions, it seems, is to question the Enlightenment itself.

And yet I feel that such questioning is necessary. Hence the premise of this book: Silicon Valley's quest to fit us all into a digital straightjacket by promoting efficiency, transparency, certitude, and perfection—and, by extension, eliminating their evil twins of friction, opacity, ambiguity, and imperfection—will prove to be prohibitively expensive in the long run. For various ideological reasons to be explained later in these pages, this high cost remains hidden from public view and will remain so as long as we, in our mindless pursuit of this silicon Eden, fail to radically question our infatuation with a set of technologies that are often lumped together under the deceptive label of "the Internet."

This book, then, attempts to factor in the true costs of this highly awaited paradise and to explain why they have been so hard to account for.

CONSTITUTIVE OF HUMAN FREEDOM, AND ANY CONCENTRATED ATTEMPT TO WELL





The ultimate goal of this book, then, is to uncover the attitudes, dispositions, and urges that comprise the solutionist mind-set, to show how they manifest themselves in specific projects to ameliorate the human condition, and to hint at how and why some of these attitudes, dispositions, and urges can and should be resisted, circumvented, and unlearned. For only by unlearning solutionism—that is, by transcending the limits it imposes on our imaginations and by rebelling against its value system— will we understand why attaining technological perfection, without attending to the intricacies of the human condition and accounting for the complex world of practices and traditions, might not be worth the price.

INTRODUCTION

S DISCONTENTS /SOLUTIONISM AND IT' 02.2

/THE WILL TO IMPROVE (JUST ABOUT EVERYTHING!)

To save everything click here" The folly of technological solutionism Evgeny Morozov's. 2013. critical perspective.

technology to work... because it will just be seamless. It will just be there. The Web will be everything, and it will also be nothing. It will be like electricity. . . If we get this right, . believe we can fix all the world's problems." - Eric Schimdt

02.2 /SOLUTIONISM AND IT'S DISCONTENTS

Have you ever peeked inside a friend's trash can? I have. And even though I've never found anything worth reporting—not to the KGB anyway—I've always felt quilty about my insatiable curiosity. Trash, like one's sex life or temporary eating disorder, is a private affair par excellence; the less said about it, the better. While Mark Zuckerberg insists that all activities get better when performed socially, it seems that throwing away the garbage would forever remain an exception—one unassailable bastion of individuality to resist Zuckerberg's tyranny of the social.

Well, this exception is no more: BinCam, a new project from researchers in Britain and Germany, seeks to modernize how we deal with trash by making our bins smarter and—you guessed it—more social. Here is how it works: The bin's inside lid is equipped with a tiny smartphone that snaps a photo every time someone closes it—all of this, of course, in order to document what exactly you have just thrown away. A team of badly paid humans, recruited through Amazon's Mechanical Turk system, then evaluates each photo. What is the total number of items in the picture? After this data is attached to the photo, it's uploaded to the bin owner's Facebook account, where it can also be shared with other users. Once such smart bins are installed in multiple households, BinCam creators hope, Facebook can be used to turn recycling into a game-like exciting competition. A weekly score is calculated for each bin, and as the amounts of food waste and recyclable materials in the bins decrease, households earn gold bars and leaves. Whoever wins the most bars and tree leaves, wins. Mission accomplished; planet saved!(...)



A project like BinCam would have been all but impossible fifteen years ago. First, trash bins had no sensors that could take photos and upload them to sites like Facebook; now, tiny smartphones can do all of this on the cheap. Amazon didn't have an army of bored freelancers who could do virtually any job as long as they received their few pennies per hour. (And even those human freelancers might become unnecessary once automated imagerecognition software gets better.) Most importantly, there was no way for all our friends to see the contents of our trash bins; fifteen years ago, even our personal websites wouldn't get the same level of attention from our acquaintances—our entire "social graph," as the geeks would put it—that our trash bins might receive from our Facebook friends today. Now that we are all using the same platform— Facebook—it becomes possible to steer our behavior with the help of social games and competitions;





(...) that more and more of our life is now mediated through smart sensor-powered technologies and that our friends and acquaintances can now follow us anywhere, making it possible to create new types of incentives—will profoundly change the work of social engineers, policymakers, and many other do-gooders. All will be tempted to exploit the power of these new techniques, either individually or in combination, to solve a particular problem, be it obesity, climate change, or congestion. Today we already have smart mirrors that, thanks to complex sensors, can track and display our pulse rates based on slight variations in the brightness of our faces; soon, we'll have mirrors that, thanks to their ability to tap into our "social graph, "will nudge us to lose weight because we look pudgier than most of our Facebook friends(...) Sensors alone, without any connection to social networks or data repositories, can do quite a lot these days. The elderly, for example, might appreciate smart carpets and smart bells that can detect when someone has fallen over and inform others. Even trash bins can be smart in a very different way. Thus, a startup with the charming name of BigBelly Solar hopes to revolutionize trash collecting by making solar-powered bins that, thanks to built-in sensors, can inform waste managers of their current capacity and predict when they would need to be emptied. This, in turn, can optimize trash collection routes and save fuel.

SOLUTIONISM SOLUTIONISM

02.1 /INTRODUCTION

02.2 /SOLUTIONISM AND 1T'S DISCONTENTS
02.3 /THE WILL TO IMPROVE (JUST ABOUT EVERYTHING!)

Evgeny Morozov's. 2013.

To save everything click here" The folly of technological solutionism
- An critical perspective.

"Solu ionism' [interprets] issues as puzzles to which there is a solution, rather than problems to which there may be a

response." - Gilles Paquet

02.3/THE WILL TO IMPROVE (JUST ABOUT EVERYTHING!)

That smart technology and all of our social connections (not to mention useful statistics like the real-time aggregate consumption of electricity) can now be "inserted" into our every mundane act, from throwing away our trash to making tea, might seem worth celebrating, not scrutinizing. Likewise, that smartphones and social-networking sites allow us to experiment with interventions impossible just a decade ago seems like a genuinely positive development. Not surprisingly, Silicon Valley is already awash with plans for improving just about everything under the sun: politics, citizens, publishing, cooking.

Alas, all too often, this never-ending quest to ameliorate
—or what the Canadian anthropologist Tania Murray
Li, writing in a very different context, has called
"the will to improve"—is shortsighted and only
perfunctorily interested in the activity for which
improvement is sought. Recasting all complex social
situations either as neatly defined problems
with definite, computable solutions or as
transparent and self-evident processes that
can be easily optimized—if only the right
algorithms are in place!—this quest is likely to
have unexpected consequences that could
eventually cause more damage than the
problems they seek to address.

I call the ideology that legitimizes and sanctions such aspirations" solutionism." I borrow this unabashedly pejorative term from the world of architecture and urban planning, where it has come to refer to an unhealthy preoccupation with sexy, monumental, and narrow-minded solutions—the kind of stuff that wows audiences at TED Conferences—to problems that are extremely complex, fluid, and contentious. These are the kinds of problems that, on careful examination, do not have to be defined in the singular and all-encompassing ways that "solutionists" have defined them; what's contentious, then, is not their proposed solution but their very definition of the problem itself. Design theorist Michael Dobbins has it right: solutionism presumes rather than investigates the problems that it is trying to solve, reaching "for the answer before the questions have been fully asked." How problems are composed matters every bit as much as how problems are resolved.

Solutionism, thus, is not just a fancy way of saying that for someone with a hammer, everything looks like a nail; it's not just another riff on the inapplicability of "technological fixes" to "wicked problems" (a subject I address at length in The Net Delusion).

It's not only that many problems are not suited to the quick -and-easy solutionist tool kit. It's also that what many solutionists presume to be "problems" in need of solving are not problems at all; a deeper investigation into the very nature of these "problems" would reveal that the inefficiency, ambiguity, and opacity—whether in politics or everyday life—that the newly empowered geeks and solutionists are rallying against are not in any sense problematic.

It may seem that a critique of solutionism would, by its very antireformist bias, be the prerogative of the conservative. In fact, many of the antisolutionist jibes throughout this book fit into the tripartite taxonomy of reactionary responses to social change so skillfully outlined by the social theorist Albert Hirschman. In his influential book The Rhetoric of Reaction. Hirschman argued that all progressive reforms usually attract conservative criticisms that build on one of the following three themes: perversity (whereby the proposed intervention only worsens the problem at hand), futility (whereby the intervention yields no results whatsoever), and jeopardy (where the intervention threatens to undermine some previous, hard-earned accomplishment) (...) I do not advocate inaction or deny that many (though not all) of the problems tackled by solutionists—from climate change to obesity to declining levels of trust in the political system—are important and demand immediate action (how exactly those problems are composed is, of course, a different matter; there is more than one way to describe each). But the urgency of the problems in question does not automatically confer legitimacy upon a panoply of new, clean, and efficient technological solutions so in voque these days. My preferred solutions—or, rather, responses—are of a very different kind.

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- It's also not a coincidence that my critique of solutionism bears some resemblance to several critiques of the numerous earlier efforts to put humanity into too tight a straitjacket. Today's straitjacket might be of the digital variety, but it's hardly the first or the tightest. While the word "solutionism" may not have been used, many important thinkers have addressed its shortcomings, even if using different terms and contexts. I'm thinking, in particular, of Ivan Illich's protestations against the highly efficient but dehumanizing systems of professional schooling and medicine, Jane Jacobs's attacks on the arrogance of urban planners, Michael Oakeshott's rebellion against rationalists in all walks of human existence, Hans Jonas's impatience with the cold comfort of cybernetics; and, more recently, James Scott's concern with how states have forced what he calls "legibility" on their subjects. Some might add Friedrich Hayek's opposition to central planners, with their inherent knowledge deficiency, to this list.
- These thinkers have been anything but homogenous in their political beliefs; Ivan Illich, Friedrich Hayek, Jane Jacobs, and Michael Oakeshott would make a rather rowdy dinner party. But these highly original thinkers, regardless of political persuasion, have shown that their own least favorite brand of solutionist—be it Jacobs's urban planners or Illich's professional educators—have a very poor grasp not just of human nature but also of the complex practices that this nature begets and thrives on. It's as if the solutionists have never lived a life of their own but learned everything they know from books—and those books weren't novels but manuals for refrigerators, vacuum cleaners, and washing machines.

Thomas Molnar, a conservative philosopher who, for his smart and vehement critique of technological utopianism written in the early 1960s, also deserves a place on the antisolutionist pantheon, put it really well when he complained that:

"when the utopian writers deal with work, health, leisure, life expectancy, war, crimes, culture, administration, finance, judges and so on, it is as if their words were uttered by an automaton with no conception of real life. The reader has the uncomfortable feeling of walking in a dreamland of abstractions, surrounded by lifeless objects; he manages to identify them in a vague way, but, on closer inspection, he sees that they do not really conform to anything familiar in shape, color, volume, or sound." (...)



THAT SOLUTIONS PROPOSED
ARE UNLIKELY TO WORK
BUT THAT, IN SOLVING
THE "PROBLEM," SOLUTIONISTS
TWIST IT IN SUCH AN UGLY
AND UNFAMILIAR WAY THAT,
BY THE TIME IT IS "SOLVED,"
THE PROBLEM BECOMES
SOMETHING FLSE
ENTIDELY

The ballyhoo over the potential of new technologies to disrupt education—especially now that several start-ups offer online courses to hundreds of thousands of students, who grade each other's work and get no face time with instructors—is a case in point. Digital technologies might be a perfect solution to some problems, but those problems don't include education—not if by education we mean the development of the skills to think criticallyabout any given issue. Online resources might help students learn plenty of new facts (or "facts," in case they don't cross-check what they learn on Wikipedia), but such fact cramming is a far cry from what universities aspire to teach their students.

As Pamela Hieronymi, a professor of philosophy at the University of California, Los Angeles (UCLA), points out in an important essay on the myths of online learning, "Education is not the transmission of information or ideas. Education is the training needed to make use of information and ideas. As information breaks loose from bookstores and libraries and floods onto computers and mobile devices, that training becomes more important, not less." Of course, there are plenty of tools for increasing one's digital literacy, but those tools go only so far; they might help you to detect erroneous information, but they won't organize your thoughts into a coherent argument. Adam Falk, president of Williams College, delivers an even more powerful blow against solutionism in higher education when he argues that it would be erroneous to pretend that the solutions it peddles are somehow compatible with the spirit and goals of the university(...)

- Falk notes that, based on the research done at Williams, the best predictor of students' intellectual success in college is not their major or GPA but the amount of personal, face-to-face contact they have with professors. According to Falk, averaging letter grades assigned by five random peers—as at least one much-lauded start-up in this space, Coursera, does—is not the "educational equivalent of a highly trained professor providing thoughtful evaluation and detailed response." To pretend that this is the case, insists Falk, "is to deny the most significant purposes of education, and to forfeit its true value."
- Here we have a rather explicit mismatch between the idea of education embedded in the proposed set of technological solutions and the timehonored idea of education still cherished at least by some colleges. In an ideal world, of course, both visions can coexist and prosper simultaneously. However, in the world we inhabit, where the administrators are as costconscious as ever, the approach that produces the most graduates per dollar spent is far more likely to prevail, the poverty of its intellectual vision notwithstanding. Herein lies one hidden danger of solutionism: the quick fixes it peddles do not exist in a political vacuum. In promising almost immediate and much cheaper results, they can easily undermine support for more ambitious, more intellectually stimulating, but also more demanding reform projects.

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03 /PROJECTS

/POST-DIGITAL

<u>Richard Dupont</u> – Out of Hand. Materializing the Postdigital



(3.1)"Out of Hand: Materializing the Postdigital explores the 21st-Century phenomenon of extraordinary creativity made possible by advanced methods of computer-assisted production known as digital fabrication. In today's postdigital world, artists are using these means to achieve levels of expression never before possible. Out of Hand is the first publication to examine this interdisciplinary trend through pioneering works of more than 80 international artists, architects, and designers, including Ron Arad, Barry X Ball, Zaha Hadid, Stephen Jones, Anish Kapoor, Allan McCollum, Marc Newson, Richard Dupont, and Roxy Paine. Out of Hand represents some of the most compelling creations from the past decade ranging from sculpture and furniture to fashion and transport."

OUT OF HAND: MATERIALIZING THE POSTDIGITAL The Museum of Arts and Design (MAD) by Ronald Labaco with Texts by Christiane Paul and Greg Lynn.(2014)

richarddupont.com

Martin Conrads, Franziska Morlok (eds.), War postdigital besser?, 2014



(3.2) Recently published by Revolver, War postdigital besser? was edited and designed by writer and artist Martin Conrads and graphic designer Franziska Morlok. The book includes texts by Verena Kuni, Jan Distelmeyer, Manuel Bürger, Clemens Jahn, Nina Franz and a conversation among Danny Aldred, Kristoffer Gansing and Siegfried Zielinski. As a result of a seminar held at the Berlin University of the Arts, it documents the outcomes of the students confronted with the notion of "post-digital". I was particularly curious about the educational directions and outputs of such attempt so I asked the editors a few questions.

article written by Silvio Lorusso September 14th, 2014

post-digital--publishing-archive

03 /PROJECTS

/TECHNO SOLUTIONISM

Sofia Caeser "worktation" (2019)



(3.3) Sofia Caesar's 2019 series of four video self-portraits "Workation"—depicting the artist on "workation," sitting by the beach or on a lush balcony working away on her laptop—are presented in a room covered in yellow fabric, with bright daffodil-hued pillows strewn on the floor. The installation is inviting and warm, sustaining the illusion of digital nomadism, a world where technology released workers from their desks so work can be "fun."

Video installation, dimensions variable. Image courtesy of the artist and Transmediale, Berlim. Photo by Luca Giardini.

Transmediale, "for refusal" autor: Orit Gat

Emo de Medeiros, Vodunaut #002 (Hypercharger)



(3.4)The Vodunaut series was born from a fascination for cowry shells, space navigation, the times to come, and this question: what if a future futurology was based on Fa?
Fa (or Ifa) is a West African philosophy and geomancy system, widespread in Benin as well as Nigeria (and present in Brazil) that involves cowry shells, both as objects and symbols.

Vodunaut #03, 2015 emodemedeiros.com

This project consists of two editorial objects: a print publication and a website. The website intends to be just a tool to see more projects about the theme: post-digital and techno solutionism.

+ See the Website page here (https://2023.fbaul-dcnm.pt/joao_pereira/proj.2/

DESIGN João Pereira

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