Preface: Everyday Technology Press

What you are holding in your hands or browsing on your screen is the first book published by the Everyday Technology Press, an imprint run by the Rotterdam-based collective space Varia. Everyday technology is not just a moniker for the tools and devices we use on a daily basis, but a formula that identifies a perspective on technical artefacts and a programmatic goal. Everyday technology means that a sewing machine is no less important than a laptop, that a seamstress's work is by no means less meaningful than that of a computer scientist. Focusing on everyday technology means questioning the hierarchies that surround technical objects and therefore the valorisation of skills needed to design or use them. Everyday technology means also reconsidering the hegemony of high tech: with our publications, we try to show that low-tech approaches can be complex, inventive, and joyful.

At Everyday Technology Press, we believe that not only experts should have access and decisive power in regards to how things should work. This is why our publications show and document convivial tools; tools that guarantee a certain degree of autonomy to their users. We understand autonomy in Ivan Illich's terms, namely, the possibility for each and everyone to use a tool in order to realise their own intentions and create meaning by leaving a mark, however small, in the world.[1] We strive to include multiple and entangled perspectives, needs, and aspirations that are at play when it comes to technology. We think of theory as a practice and practice as a form of knowledge production. True to this belief, in our publications we complement analyses with instructions and code; tutorials and methods with essays. Here, the *know what* goes hand in hand with the *know how*.

Through its engagement with vernacular languages, *Vernaculars come to matter* suggests another meaning of everyday technology. Technology is often not recognised as such. Language, for example, is something that many take for granted and deem and call "natural." However, a variety of technical procedures, rules, and constraints operate on top of its roots, which are, according to Jorge Luis Borges, "irrational and magical."[2] This is how language becomes a technology. The technologisation of language tends to be a singular, reductive operation that produces language with a capital "L" as a technology with a capital "T." *Vernaculars come to*

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[1] Ivan Illich, *Tools for conviviality* (New York: Harper and Row,1973).
[2] Jorge Luis Borges, *El otro, el mismo* (Buenos Aires: Emecé, 2005).

matter counterbalances that: this book does not only show that a wealth of linguistic modes of being exist, but also that they can thrive, given enough space and the proper amount of attention.

Silvio Lorusso

From *contradictionaries* to *formatterings*: an introduction to VLTK – Vernacular Language Toolkit[1]

Cristina Cochior
Julie Boschat-Thorez
Manetta Berends
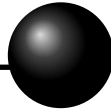
> A language comes into existence by means of brutal necessity, and the rules of the language are dictated by what the language must convey.[2]

Despite their ubiquity, the processes of computational language manipulation are largely imperceptible; they envelop, inform, and often standardise intimate interactions with the world. From spam filters, to search optimisation engines, to targeted advertisements, to reshuffled social media timelines, online experiences are mediated by the ordering logics of language processing.

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[1] A toolkit among a myriad of other possible vernacular language toolkits.

[2] James Baldwin, "If Black English Isn't a Language, Then Tell Me, What Is?" *The New York Times*, July 29, 1979.

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Vernaculars come to matter brings together contributions by Cengiz Mengüç, Clara Balaguer, Michael Murtaugh, Ren Loren Britton, and Rosemary Grennan. This publication, whose title derives from Britton's contribution, reflects on the roles that the vernacular can play in linguistic and technological environments, as well as what vernacular orders language could inhabit or create. It is a speculation on what vernacular language processing might mean when considering how and where language is situated. *Vernaculars comes to matter* is made in the context of the project VLTK, a Vernacular Language Toolkit in the making.

In this introductory text, we will share some of the thoughts behind Vernacular Language Toolkit, or VLTK in short, the starting point of this publication. VLTK is an ongoing research project initiated by Cristina Cochior, Julie Boschat-Thorez, and Manetta Berends that aims to connect the vernacular to "language processing," a practice that refers to any kind of computational treatment of language. By combining these, it explores what forms of "vernacular language processing" there could be.

VLTK takes a dive into the logical operations that are used to process language with a computer to speak back to a range of unassuming habits in the field of computational language processing, and step towards modes of embedded, slow, and vernacular language processing and knowledge organisation. "Vernacular" in this text refers to everyday speech forming at the margins of standardisation; the ephemeral aspects of a culture's particularities that resist or exist alongside dominant systems of institutional aesthetics; or the encapsulation of a specific nowness in time.

Stretching the vocabulary that is commonly used by computational language processing practices is an important part of the work. In these contexts, language is often understood as "natural" or "artificial," where the natural refers to spoken or written human language and the artificial to formal languages such as programming languages. Questioning these terms enables us to approach language as culturally promiscuous, and constantly in flux. Language is complex, messy, and contains all kinds of structures; some emerge through use, like sayings or expressions, others are imposed by external forces, sometimes even violently.[3] Instead of thinking of language as "raw" data, we prefer to consider it as heavily embedded and dense cultural material, which carries traces of its uses through time and ties to different locations. And instead of speaking of "extracting" keywords or phrases, to think of such actions as *re-formations* or *di-versioning*.

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[3]   "It is often forgotten that [dictionaries] are artificial repositories, put together well after the languages they define. The roots of language are irrational and of a magical nature." Jorge Luis Borges, *El otro, el mismo*. (Buenos Aires: Emecé, 2005), 5. Translation by the authors.

We are curious about undoing and crossing such pervasive terminologies into methods that allow us to rethink how we work with language in code: from dictionaries to *contradictionaries*, from counting via accounting to *ac-count-abilities*, from overlapping to *overlooping*, from formatting to *formatterings*. For example, a *contradictionary* could provide openings to possible interpretations of a word, instead of defining its meaning. A *formattering* could refer to the shaping of matter through formats. And so on.

The specific focus of VLTK on language playfully blurs the boundaries between tool (code as language) and material (language as code). Language processing tools are often made as instruments that can be used for any kind of textual material, making them effective tools for certain tasks, but bombastic, rough, and imprecise on other occasions as they process text without engaging with its content. This tension between tool and material creates a generative space to formulate questions: How does language change when it undergoes computational processes if we don't rely on the dualisms? How can language processing tools operate with a sensibility for all sorts of different complexities, specificities, and weights of language? How can we develop ways of close reading through and with code? Whose language is being processed by code? And who is affected by the logics of these systems? Can we think of computational operations as transmutational processes if we understand the transformations of language from one thing to another as a form of computational alchemy?

From the "natural" to the "vernacular"

The acronym VLTK is a response to, and joke on, a ubiquitous programming library called NLTK, which stands for Natural Language ToolKit. It is a well-known project among programmers and people working in the field of computational linguistics, which is also known as the field of Natural Language Processing (NLP). Current, concrete use cases of NLTK include operations such as text classification for customer support, sentiment analysis for marketing purposes, or automated hate speech detection. Our collective work around VLTK started from a discomfort with the expression "natural language," which is used in the field of computational linguistics to refer to language that has not been structured (yet) for further computational processing. Accepting the premise that language is natural would imply ignoring the procedures through which language becomes naturalised, imposed, or overwritten, and ignoring the political

mechanisms that sustain these efforts. We came to VLTK through a word play that scratched the itch of this discomfort and we started replacing the term "natural" with "vernacular" instead. Vernacular, a word close to "vulgar" – of the people, common – points towards the processes of language formation, and the context and urgency they require to exist. This small but defiant joke slowly grew through conversations, reflections, and a desire to try to do otherwise. It opened up and stretched generative spaces ofinterpretation.

NLTK allows you to interface with text in many different ways using a programming language, in this case Python. The makers of NLTK introduce the project on their website by describing it as:

> […] a leading platform for building Python programs to work with human language data. It provides easy-to-use interfaces to over 50 corpora and lexical resources such as WordNet, along with a suite of text processing libraries for classification, tokenization, stemming, tagging, parsing, and semantic reasoning, wrappers for industrial-strength NLP libraries, and an active discussion forum.[4]

NLTK comes with a whole set of interfaces, such as word counters, summarizers, text generators, translators, context inspectors, dictionary functions, classification tools, and more. The toolkit is extensive, and some of its components have been integrated so within many applications or systems that they are used by people with backgrounds ranging from the arts and humanities to science and engineering.[5] NLTK was initiated by Steven Bird and Edward Loper in the Department of Computer and Information Science at the University of Pennsylvania. The project is published under an open licence,[6] which means that anyone can use, modify, and distribute versions of the software for commercial or other purposes.

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[4] http://www.nltk.org

[5] "NLP is important for scientific, economic, social, and cultural reasons. NLP is experiencing rapid growth as its theories and methods are deployed in a variety of new language technologies. For this reason it is important for a wide range of people to have a working knowledge of NLP. Within industry, this includes people in human-computer interaction, business information analysis, and web software development. Within academia, it includes people in areas from humanities computing and corpus linguistics through to computer science and artificial intelligence. (To many people in academia, NLP is known by the name of 'Computational Linguistics.')" https://www.nltk.org/book/ch00.html#audience

[6] NLTK is published under the Apache license v2.0, https://www.apache.org/licenses/LICENSE-2.0

Vernacular processing as mapping

The field of NLP understands mapping as an activity to turn so-called unstructured language into structured linguistic objects, such as a document index, a thesaurus, a dictionary, a comparative word list, or a morph analyser. In the NLTK textbook, *Natural Language Processing with Python*,[7] such mapping activities are introduced in the following way:

> Most often, we are mapping from a "word" to some structured object. For example, a document index maps from a word (which we can represent as a string), to a list of pages (represented as a list of integers). In this section, we will see how to represent such mappings in Python.[8]

In the same chapter there is also a table that describes the different maps that NLTK comes with:

Linguistic Object	Maps From	Maps to
Document Index	Word	List of pages (where word is found)
Thesaurus	Word sense	List of synonyms
Dictionary	Headword	Entry (part-of-speech, sense definitions, etymology)
Comparative Wordlist	Gloss term	Cognates (list of words, one per language)
Morph Analyzer	Surface form	Morphological analysis (list of component morphemes)

Figure: NLTK's linguistic objects, From *Natural Language Processing with Python: Analyzing Text with the Natural Language Toolkit "Table 3.1: Linguistic Objects as Mappings from Keys to Values"*[9]

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[7] *Natural Language Processing with Python* is a textbook, which is often used as a first mediator when working with NLTK tools. Steven Bird, Ewan Klein, and Edward Loper, *Natural Language Processing with Python: Analyzing Text with the Natural Language Toolkit* (Cambridge: O'Reilly, 2009). The book is also available in a digital form at https://www.nltk.org/book.

[8] https://www.nltk.org/book/ch05.html#sec-dictionaries

[9] https://www.nltk.org/book/ch05.html#tab-linguistic-objects

NLTK uses the metaphor of mapping to form indexical relations between truth and map. The use of the word mapping was something that caught our attention – it is this indexical relation that needs questioning and study. Considering that language maps generate a new kind of linguistic matter, one that is processed and transformed through code, how does that mutate language? How can these mutations be studied? What kinds of maps can be made to map language differently? Can mapping be done based on:

- **disorientation** by losing familiarity with a text?
- **thickening of matter, structures, or paths** by intersecting text with other texts?
- **revision of markers of orientation** by amending the path over time?
- **following threads** by focusing on one perspective at a time?
- **reparative taxonomies** by "reconfiguring relations according to local and personal vantage points"?[10]
- **perversion** by operating outside of the normative discourse?[11]

Below is an attempt to remake the table of linguistic objects keeping these questions in mind:

Linguistic Object	Maps From	Maps to
?	?	?
Cross-referencing matrix	Voices	?
?	Working conditions	?
Document x-dex	Angles, texts, forms	Traces
?	Sentences	Question (making space)
Navigation score	Words	Paths taken by visitor
__MAGIC_WORDS_- _	?	Modes of engagement
Complexity matrix	Words	Textual patterns
?	Ideas	Linked data
?	Word-combinations	Word-puns
Contradictionary	Contradictions	?
?	Differences	Markers of difference
Formatterings	Aesthetics	Collages

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[10] Melissa Adler, "Eros in the library: Considering the aesthetics of knowledge organization," *Art Libraries Journal* 44, no. 2 (April 2019): 67–71.

[11] Melissa Adler, *Cruising the Library: Perversities in the organisation of knowledge* (New York: Fordham University Press, 2017).

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Transfictions	Generative phrasings	Fictional transcripts
?	IN + NN	Prepositional agents
Pythonic texts	Cultural traditions	Python-like syntax
Non-linear slowgression	Intuitive correlations	?
Situated calculations	?	?

Figure: A table of VLTK possibilities. To be versioned and expanded.

The table of VLTK possibilities includes *Complexity matrices* that complexify the understanding of the context of a certain phrase or word[12]; *Navigation scores* that generate scores based on the path a reader took through the text, ready for a next reader to be used as a guide; and forms of encapsulated close reading, using *Transfictions*, to provide ways to ruminate a set of phrases by dislocating and re-contextualizing them. This last one is interpreted into a script below that wraps expressions from the book *Queer Phenomenology* by Sara Ahmed into a compilation of conversational utterances arranged by chance.[13]

```
They looked at the auto-complete suggestions and suddenly
    said:

"You know, markers of difference!"

Which made me think... boo,

capacity to position ourselves, hmm...

They looked at our variables and suddenly whispered:

"You know, that allow people to move!"

Which made me think... ahem,

anchoring points, no?
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[12] An example of this is word2complex, a workshop by Manetta Berends and Cristina Cochior. word2complex is a thought experiment to resist the flattening of meaning that is inherent in word2vec, a model commonly used to create "word embeddings." http://titipi.org/wiki/index.php/Word2complex

[13] Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others* (Durham: Duke University Press, 2006).

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They looked at this dataset and suddenly mumbled:

"You know, we are orientated!"

Which made me think... ahem,

inhabiting space, right?

They looked at all our different keyboards and suddenly
    realised:

"You know, emotional intentionality!"

Which made me think... duh,

we are orientated, no?

They looked at the auto-complete suggestions and suddenly
    whispered:

"You know, difference as a simple database category!"
```

The code output above is a fictional script generated by taking some of Ahmed's phrases out of their context and placing them into a wholly different one. The phrases are taken from their academic register and are placed into a colloquial one, introducing a shift in tone and making space to relate to the snippets in other ways.

The dislocation and relocation of phrases in the transfiction above draws attention to the aesthetics of knowledge organisation and structuring. By playing with traces of orality, versioning the language by accompanying it with verbal expressions, the example can be read as an invitation to keep Ahmed's phrases close, giving room for generating new understandings of them. The repetition of the dialogical phrases, for example, injects an idea of timing and rhythm, leaving gaps for the reader to fill in with their own interpretations.

In "Eros in the Library," Melissa Adler introduces the ancient Greek historian Pamphila, who weaved "multiple sources and genres together to create a pleasing set of histories," through a method she she called *poikilia*.[14] Adler cites Adeline Grand-Clément's definition of *poikilia* as "harmonia

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[14] Adler, "Eros in the library," 69.

that does not unify."[15] The aesthetic beauty and pleasure in Pamphilia's method shifts the purpose of knowledge organisation.

Instead of looking at the text from a distance by counting words and searching for numerical patterns throughout Ahmed's book, which is a very common practice in the field of NLP, these phrases were chosen after closely reading and discussing them. However, there is still an awkwardness in mixing them through programmatic relocations, placing the words in another context than the author intended them to be in, which speaks to their need to be handled with care because a misalignment of contexts can create hurt.

The transfiction is an exercise to think about the relocation and recontextualisation of language, which has started from specific words from the book that resonated with the questions around vernacular language processing. They introduce a thinking around the notion of orientation, which adds a situated dimension to the metaphor of mapping. Ahmed describes orientation as a gesture of being "turned toward certain objects, those that help us to find our way."[16] If language is seen as a landscape of textual objects, in which one wishes to orient oneself, how do markers of orientation and markers of difference emerge? How do we orient ourselves? And what does it mean to be orientated through linguistic markers?

What does it mean to use the metaphor of mapping when working with language processing tools? Which issues and tensions related to non-metaphorical mapping practices – such as cartography – can we learn from when we map language?

Where is the vernacular?

The vernacular is often depicted in opposition to the standard. However, this relationship is not fixed, as the vernacular may influence the standard over time, or the standard may cause the vernacular as a response. The ubiquity of standards creates access to systems, as such they are valuable technical rule sets. However, they are difficult to change, are defined by a limited few, and exclude some groups, languages, or habits. This field of tension introduces many questions around the relation between the vernacular and the standard, without idealising or renouncing either.

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[15] Adeline Grand-Clément, "Poikilia," in *A Companion to Ancient Aesthetics*, ed. Pierre Destrée and Penelope Murray (Hoboken: John Wiley & Sons, 2015), 410, cited in Adler, "Eros in the library," 69.

[16] Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others* (Durham: Duke University Press, 2006), 1.

To dive into the relationship between standards and the vernacular, Halcyon Lawrence's research makes an important point. Lawrence's research demonstrates that English-language information spoken with non-native accents is just as well understood by her interviewees as that spoken with native accents, but listeners take a little longer to process the information. She concludes that including non-native accents in the technologies that accompany the everyday is achievable, yet time is a prerequisite for it. It takes time to communicate between vernaculars.[17]

The relation between the vernacular and time is also explored in the writings of James C. Scott, who provides us with the analogy of vernacular road names. A road might be known by locals under different names depending on where the traveller is heading to.[18] He gives the example of a road between Durham and Guildford, which depending on the direction one is taking changes name: if one is heading to Guilford, the road becomes the Guilford Road and if one is heading to Durham, the road turns into Durham Road. Following this logic, several roads might share the same name, making it difficult to distinguish them from each other, which would be important in case of an emergency. In this case, the time it takes to find the road would need to be optimised.

In the two examples above, we are speaking about different kinds of vernacular. In the first case, the vernacular appears as vernacular language and in the second one as a form of a vernacular way finding system.

Where the vernacular is positioned within vernacular language processing is a complex question. How do we differentiate between different forms of informal language, such as dialects, accents, or slang? How do we understand the vernacular in relation to standards, urgencies, access, and time? This is a political question. Due to structural inequalities, it is important for more forms of speech, accents, and grammar, to be included in mainstream ways of doing, such as in the case mentioned by Halcyon Lawrence, which is a request for the vernacular to become standardised. It matters who the standards exclude, who has access, or for what purpose time is optimised.

Optimisation is a term often encountered in technical environments, where it generally refers to maximising the technical performance and minimising the financial costs of a particular technology. Seda Gürses et al argue that "optimization-based systems are developed to capture and manipulate behavior and environments for the extraction of value"

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[17] Halcyon Lawrence, "Inauthentically Speaking: Speech Technology, Accent Bias and Digital Imperialism," presentation at Computer History Museum, April 26, 2017, https://www.youtube.com/watch?v=gJCVla9xYUs. 1:25–17:15

[18] James C. Scott, *Two Cheers for Anarchism* (Princeton: Princeton University Press, 2012), 30–32.

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and that as a result, "they introduce broader risks and harms for users and environments beyond the outcome of a single algorithm within that system."[19] While optimisation has its purpose in specific situations such as the non-static naming system of roads, the way optimisation has been embraced by the sciences as a mode of operating removes the possibility to stay with the uncertainty of what will follow, because the goal is defined within a financial scope. In programming more specifically, code is often written with the projection of what it should do in the world already present.

What might it mean instead to slow down and re-embed language processing in a messy world,[20] making space for rethinking the goal of a project or even without aiming for solutions at all? To take the time to develop counter-hegemonic counting techniques that process language otherwise?[21] VLTK turns to slow processing as a way to turn and return to the material at hand.

A conclusion that is a beginning

Although the questions we ask may seem particular to language processing applications in scope, they are still relevant in a broader sense, as the intentions behind human communication are more and more evaluated by algorithms, especially on social media. For example, since 2017 hate speech and harassment recognition on Twitter has been heavily reliant on algorithms, but trolls have come to adopt methods that

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[19] Seda Gürses et al, "POTs: Protective Optimization Technologies," *FAT* '20: Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 177–188. Paper available at https://arxiv.org/pdf/1806.02711.pdf. Quote is p1 on uploaded version.

[20] Derived from: "Reclaiming operations are never easy. If reclaiming scientific research means re-embedding the sciences in a messy world, it is not only a question of accepting this world as such, but of positively appreciating it, of learning how to foster and strengthen, in Whitehead's words, 'the habits of concrete appreciation of the individual facts in their full interplay of emergent values'." Isabelle Stengers, *Another Science is Possible: A Manifesto for Slow Science* (Cambridge: Polity, 2018), 122.

[21] "...referencing and citation in Black studies are what Carmen Kynard calls 'vernacular insurrections': narratives that are 'not only counter hegemonic, but also affirmative of new, constantly mutating languages, identities, political methodologies, and social understandings that communities form in and of themselves both inwardly and outwardly . . . not merely the bits and pieces chipped off or chipping away at dominant culture, but a whole new emergence.'" Katherine McKittrick, *Dear Science and Other Stories*, (Durham: Duke University Press, 2021), 26–27. McKittrick is citing Carmen Kynard, *Vernacular Insurrections: Race, Black Protest, and the New Century in Composition Literacies Studies* (Albany: SUNY Press, 2013), 10–11.

can circumvent their speech from being flagged. Twitter has what they call a Hate Lab that works on algorithms "to end hate speech and improve healthy conversations online."[22] Formally codifying the understanding of what hate speech consists of leaves plenty of ways to work around a detection algorithm, and so methods of pursuing reckless harassment and hate speech have become plentiful. One can, for instance, make use of stylistic devices such as metonymy, antiphrasis, or irony. On French Twitter, immigrants and their children are referred to mockingly as "chances for the country," which implies that a certain category of immigrants' contribution to society is nefarious. By using such masked language, the messages escape hate speech detection while continuing to spread their harm. Of course, the deciphering of such allusions requires a familiarisation with the vernacular codes of these communities. Emojis are also used as signifiers of a shared universe of references. For the French it might be the map, a signifier of white supremacism that nods towards a map of the average IQs by country.[23] As such, it is important to remember that hate speech can also be vernacular language.

On the other hand, vernacular communication can be harmfully misunderstood by algorithms trained with a normative use of language in mind. This is the case with Perspective, the toxic speech detection API from Jigsaw (Google), which has a history of flagging African American Vernacular English (AAVE) as toxic.[24] Still, as of early 2021, Perspective was processing about 500 million requests daily in online spaces such as the comment sections of *El País*, *Disqus*, *The New York Times*, and others.[25] The risks of these language models reinforcing standards and refusing vernaculars are hard to understate. Communities that have been and still are marginalised become marginalised further through the rejection of their linguistic expression.

Both cases show that language models are not able to adapt to contexts and that moderation should not be left to automated systems. The vernacular and the systematic are hard to pull apart, resulting in a complex

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[22] https://developer.twitter.com/en/community/success-stories/hatelab

[23] This refers to the map in the racist and antihuman book by Richard Lynn and Tatu Vanhanen, *IQ and the Wealth of Nations* (Westport: Praeger, 2002). See also Pauline Moullot, "La carte mondiale des QI, relayée par des comptes d'extrême droite, a-t-elle une valeur scientifique?" *Liberation*, November 14, 2019, https://www.liberation.fr/checknews/2019/11/14/la-carte-mondiale-des-qi-relayee-par-des-comptes-d-extreme-droite-a-t-elle-une-valeur-scientifique_1754773/

[24] Devin Coldewey, "Racial bias observed in hate speech detection algorithm from Google," *Techcrunch*, August 15, 2019, https://techcrunch.com/2019/08/14/racial-bias-observed-in-hate-speech-detection-algorithm-from-google/

[25] Kyle Wiggers, "Jigsaw's AI-powered toxic language detector is now processing 500 million requests daily," *Venturebeat*, February 8, 2021, https://venturebeat.com/2021/02/08/jigsaws-ai-powered-toxic-language-detector-is-now-processing-500-million-requests-daily/

interrelation that is urgent to be thought through, not just in the interest of platforms.

VLTK started from an interest to understand programming in relation to language processing, a practice that both shapes language and is shaped by it. To study this mutual transformation, we are specifically curious about programming practices that stay close to the material they work with, such as code that is written for a specific collection or a specific group of people, or esoteric code that is intentionally weird, peculiar, and not always made to be functional.[26] All the while keeping in mind that the constraints of programming languages themselves will also become the constraints of vernacular language processing.

As non-professional practitioners of language processing, we are curious to understand what it means to work with tools that are commonly used while staying close to them. As such, we like to think of VLTK as a project for discussing and thinking, rather than working towards solutions; making space for programming practices, logics, and methods that depart from local standards, vernacular measurements, and forms of abstracting otherwise. VLTK is, for us, an environment to:

... think about text processing tools, question them, and talk about them, in order to explore their vernacular possibilities
... explore social aspects of formats and formal text processing systems
... explore textual data as vernacular matter, through reading systems, exercises, small scripts ...
... play with standards and taxonomies that shape structured data
... stay close to the specifics of the textual material it is processing
... gesture to what textual formattering does
... prefer the anecdotal to officiating structures
... look for the possibilities of movement within existing parameters
... question where the vernacular is located and what it is for
...

About this publication

This publication came together as a form of resonant publishing: publishing that is not done at the end of a process of thought, but is embedded in the middle of a social process where thoughts develop and unfold.[27] The

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[26] "Welcome to Esolang, the esoteric programming languages wiki! This wiki is dedicated to the fostering and documentation of programming languages designed to be unique, difficult to program in, or just plain weird." https://esolangs.org/wiki/Main_Page

[27] Our model of publishing is informed by (among many others) Stevphen Shukaitis, "Toward and Insurrection of the Published? Ten Thoughts on Ticks and Comrades," *Transversal Texts*, June 2014, https://transversal.at/transversal/0614/shukaitis/en

publication holds five contributions written by a group of co-conspirators that work with forms of vernacular languaging, software culture, and textual archives. Their contributions provide us with a rich ground of understandings of different forms of vernacular cultures and technologies.

We invited Rosemary Grennan from MayDay Rooms in London to be in conversation with us about their digital archive Leftovers, a shared online platform of political ephemera such as leaflets, posters, and manifestos. In the interview, Rosemary speaks about the structure of the archive, how they used Optical Character Recognition (OCR) and NLP tools to rethink this structure, and which dissemination tactics they have developed to make the work public.

Clara Balaguer presents a range of voices and media formats together to speak about and through the vernacular. "A high-low mix tape on the subject of the vernacular" combines lyrics, poetry, email snippets, and theoretical writing in the form of a mixtape and lecture performance, understanding the vernacular in relation to the hegemonic position of "correct" English, writing from an "I" perspective.

Ren Loren Britton's "Turnabouts and deadnames: shapeshifting trans* and disabled vernaculars" speaks about deadnames as haunting matterings filtered through the fixed categories of bureaucratic institutional interfaces. Britton describes the violence and harm that these standardised systems produce and the potential for resistance to a rectangularised spreadsheet logic through the practices of trans* vernacular language.

Cengiz Mengüç shares a selection of a growing archive and research-in-progress around vernacular street typography of photos taken in Turkey between travels and family visits through 2019 and 2021. His attention to typography in the public space reminds us that written language exists not only in its abstraction. Street typography is very much shaped by its materiality, such as the encoded information or the sun-faded gradients that appear over time, but also by the traces of "reverse diaspora"[28] aesthetics that have travelled between the city of Rotterdam and Turkey.

Michael Murtaugh uses the vernacular as a lens to understand the difference between programming projects and environments Processing and ImageMagick. "Torn at the seams: vernacular approaches to teaching with computational tools" introduces both software projects and describes how each of them comes with its own culture, aesthetics, mindset, and connections to specific contexts including the Bauhaus, minimal art, and

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[28] This is a term that Mengüç used in an email exchange while introducing his contribution, referring to the attempt to "trace back the roots of certain local Rotterdam (diasporic) aesthetics and design cultures, scrolling back and forth in my iphone folders, I decided to work with this selection of photos I took in Turkey in 2019 & 2021 in between travels and family visits."

the MIT Media Lab. Murtaugh embraces the vernacular and messiness in software projects and shows us how such an approach generates a whole range of open invitations for others.

VLTK is produced in the proximity of Varia, a collective-space in the south of Rotterdam that works on questions around everyday technology. This context allows us to unfold programming practices that combine practice-based research with networked publishing, while bridging fields of software studies and tool making, which we approach with trans*feminist sensibilities.[29]

Our (Cristina Cochior, Julie Boschat-Thorez, and Manetta Berends) shared backgrounds in Media Design and Communication at the Piet Zwart Instituut, and hands-on experiences that we gained while working with language processing tools in art and design projects or commissions, have guided our understanding of the subject.

We orient ourselves through different languages: French, Dutch, Romanian, English, Darija, Spanish, and German, but also Python, HTML, CSS, Javascript, and Bash among others, which we learn while watching TV, browsing the internet, or in conversation with family members.

This publication is published in a printed edition and digital one. The digital version is published on a self-hosted MediaWiki instance, or "wiki" in short, where we aim to unfold this research trajectory further. We see the wiki as a porous place that allows us to do this in close proximity of peers, friends, and other co-conspirators. You can find it at: https://vltk.vvvvvvaria.org/.

The printed edition was made using Free/Libre Open Source (F/LOSS) tools by Marianne Plano. This publication came together through the use of ImageMagick and LaTeX, pushing the interplay between standardised layouts and vernacular effects further.
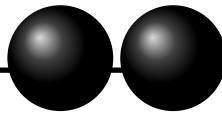
Both the printed edition and the wiki are published under the CC4r open licence,[30] which allows anyone to use, modify, and distribute versions of the work, under the condition that any derived work will be published under the same licence or one that is permissive in a similar way.

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[29] "Trans*feminism is certainly a polyhedric dynamic at work, in mutual affection with the previous forces. We refer to the research as such, in order to convoke around that star (*) all intersectional and intra-sectional aspects that are possibly needed. Our trans*feminist lens is sharpened by queer and anti-colonial sensibilities, and oriented towards (but not limited to) trans*generational, trans*media, trans*disciplinary, trans*geopolitical, trans*expertise, and trans*genealogical forms of study. The situated mixing of software studies, media archaeology, artistic research, science and technology studies, critical theory and queer-anticolonial-feminist-antifa-technosciences purposefully counters hierarchies, subalternities, privileges and erasures in disciplinary methods." From "Volumetric Regimes, Material cultures of quantifies presence," by Possible Bodies (Jara Rocha and Femke Snelting), https://volumetricregimes.xyz/index.php?title=Introduction

[30] https://gitlab.constantvzw.org/unbound/cc4r/

A high-low mix tape on the subject of the vernacular

Clara Balaguer

Lecture Performance Reading Group[1]

TRACK 1

Title   B.O.a.T.S
Artist   Mojeed
Album   Westernized West African

Mix Notes

Before playing the song, ad lib with story: found all of these songs while searching on lyrics.com for the word vernacular, wanting to present a snapshot of how this word and concept appears in popular music – which, despite the professionalized industry that creates it, can be said to form an integral part of vernacular culture. Play song, lower volume gradually but quickly after voice intro.

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1   First delivered on 2 November 2021 at XPUB (Piet Zwart Institute)

Lyrics [Excerpt]

They called our own languages vernacular
So English was the
Real language we had to speak in school so
Everything was English
With what we were taught in school
Nobody was thinking of
Whether to be African or not
We just accepted that we were English
And everybody that went to England
For studies was a master you know
Everybody wants to go to England
Come back home to be master you know

TRACK 2

Title	Natural Poetics, Forced Poetics
Artist	Édouard Glissant
Album	Caribbean Discourse
Link	https://www.dropbox.com/s/gh6b5c2esh59dqg/Glissant_Edouard_Caribbean_Discourse.pdf

Mix Notes

Read immediately after previous song intro, mentioning track info (title, artist, album).

Lyrics [Excerpt]

I define as a free or natural poetics any collective yearning for expression that is not opposed to itself either at the level of what it wishes to express or at the level of the language that it puts into practice. Forced poetics exist where a need for expression confronts an inability to achieve expression.

[A French Caribbean individual] must cut across one language in order to attain a form of expression that is perhaps not part of the internal logic of this language. A forced poetics is created from the awareness of the opposition between language that one uses and a form of expression that one needs.

Forced poetics therefore does not generally occur in a traditional culture[. …] Where the language, the means of expression, and what I call here the form of expression (the collective attitude toward the language used) coincide and reveal no deep deficiency, there is no need to resort to this ploy, to this counterpoetics.

Forced poetics or counterpoetics is instituted by a community whose self-expression does not emerge spontaneously[. …] This phenomenon is exacerbated because the communities to which I refer are always primarily oral.

Since speech was forbidden, slaves camouflaged the word under the provocative intensity of the scream. No one could translate the meaning of what seemed to be nothing but a shout. It was taken to be nothing but the call of a wild animal. This is how the dispossessed man organized his speech by weaving it into the apparently meaningless texture of extreme noise. There developed from that point a specialized system of significant insignificance. Creole organizes speech as a blast of sound.

A requirement is thus introduced into spoken Creole: speed. […] Perhaps the continuous stream of language that makes speech into one impenetrable block of sound. So the meaning of a sentence is sometimes hidden in the accelerated nonsense created by scrambled sounds. But this nonsense does convey real meaning to which the master's ear cannot have access.

One could imagine this is, moreover, a movement that is emerging almost everywhere – a kind of revenge by oral languages over written ones, in the context of a global civilization of the non-written. Writing seems linked to the transcendental notion of the individual, which today is threatened by and giving way to a cross-cultural process. In such a context will perhaps appear global systems using imaginative strategies, not conceptual structures, languages that dazzle or shimmer instead of simply "reflecting."

TRACK 3

Title	Got Skills?
Artist	Jay Sovereign (Feat. King Kogen and Mono Kong)
Link	https://youtu.be/QaEFH6iykNA

Mix Notes

Play from beginning until excerpt appears (at about 1'59"). After excerpt lyrics have been sung, abruptly mute sound and then repeat excerpt out loud.

Lyrics [Excerpt]

And they say I got vernacular which means
I got skill

TRACK 4 Mash-Up Verses

SAMPLE

Image Link https://www.dropbox.com/sh/6mwh7torsy7nd70/
AAANFDQ0KGIqe1q3cexTYDmDa

Mix Notes

Long ad-lib monologue about the context in which the mash-up tracks were created. Play images in link above as randomized photo carrousel while ad-libbing.

This mash-up is residue from a podcast recorded by design researcher Pamela Cajilig and cultural worker Clara Balaguer as classroom material for the DISKARTE DIY (2016) project by The Office of Culture and Design, Tubigon Loomweavers Multi-Purpose Cooperative, Ishinomaki Laboratory, Department of Trade and Industry, Japan Foundation.

DISKARTE DIY

++ Capacitated former fishermen to recycle their skills (from fishing to carpentry) in response to long-term destruction of coral reefs and sea life as well as short-term destruction after an earthquake. This program was co-facilitated by Ishinomaki Laboratory, a furniture design and production outfit that emerged after the city of Ishinomaki was destroyed by the 2011 tsunami.

++ Was a furniture design skills exchange and research initiative between members of two communities (Tubigon and Ishinomaki) that had to rebuild their environments after a major natural disaster (earthquake, tsunami). This five-day workshop wanted to reframe the value of precarious design in rural and underserved areas. Its practical goal was to

construct a common living and working area for the weavers of the Tubigon Loomweavers Multi-Purpose Cooperative (TLMPC). Many of their workers lived in the loomweaving warehouse in cheek-by-jowl conditions, made more uncomfortable because, aside from their small sleeping quarters, there was no common area for other domestic and work-related activities.

++ Was connected to previous initiatives with the TLMPC in Bohol Island – Dye Trying, a ten-week residency on four harness loom weaving and natural dye by Rhode Island School of Design students Lyza Baum and Emilie Jehng, and The OCD – wherein livelihood skill-building activities were based around the intention for entire family structures to be included in any development-oriented program, for the sake of sustainable longevity. Returning to the same communities to do cultural programming, in a method called repeat tacticality, was how The OCD attempted (but often failed) to enact a strategy of longer-term community impact with underfunded projects that could only have short-term, tactical lifespans.

SAMPLE

Title   Verse 1
Source   Email to Clara Balaguer about DISKARTE DIY project
Artist   Pamela Cajilig
Album   Email

Lyrics [Excerpt]

Used in a variety of contexts—from courting to fishing to playing mahjong and basketball—the term *diskarte* (etymology: Spanish: *descartar* or 'to eliminate') implies many concepts acknowledged as fundamental to design theory: intentionality, constraint, materiality, movement; seeking ways to carry on, in spite of the restrictions of the moment, in order to attain some kind of desired future. Diskarte implies arriving at a way forward, after less feasible options have been discarded. Designers of various persuasions strategize, or perform diskarte materially as they do socially. Practices that could be classified as diskarte are on one hand used to negotiate the quirks of materials such as concrete, steel, plastic, cloth, paper, paint, and wood; or of equipment such as paintbrushes, screens, graphic design software, computers, and printers. On the other hand, diskarte can also be used to simultaneously negotiate limited budgets, client whims, as well as organizational or government policy. Notably, diskarte can also have negative connotations, such as strategising in a way that is dishonest or takes advantage of others. Subjectivities in the design field are not homogenous, therefore while many designers might

† 5

relate to diskarte, not everyone in the local design industry will necessarily find resonance in the term.

SAMPLE

Title	Verse 2
Source	"Export quality extended: an exchange with The Office of Culture & Design" by Michelle James for *un Projects Magazine*
Artist	Clara Balaguer
Album	Vernacular Language Toolkit
Link	https://unprojects.org.au/issue/10-2

Lyrics [Excerpt]

I first heard about *diskarte*, as a design concept, from Pamela Cajilig, who runs a local design thinking collective called Curiosity.ph. She describes it as a strategy taken from the Filipino attitude of making the best of what you have on hand to solve problems efficiently, cheaply, quickly and humorously. DIY is more of a back-to-the-roots movement, a critique of consumerist society wherein self-insufficiency born of luxury is the norm. DIY could be described as a romanticized Westernized return to autonomy, to knowing how to fix and survive outside of planned obsolescence.

Diskarte, in contrast, is a subconscious attitude applied to design or life that stems not from luxury ennui from the want or lack of resources. It is a knowing how to solve and accept insurmountable problems in the face of poverty. We tend to see *diskarte* attitude as something to be both proud and ashamed of, as these patchwork solutions arise when money (or any other desirable asset) is missing.

Though in the North/West there is a more-or-less strong public infrastructure and consciousness for recycling, it exists alongside this cavalier faith in the renewability, the false abundance of all resources. This is the contradiction of the most pedestrian form of Western eco-sensibility. In the Philippines, on the other hand, recycling starts at home with people saving and using all sorts of scraps and fragments to make *diskarte*. Then the local garbage men collect waste in wooden carts and sacks, roving the neighbourhood with baskets and carts like the *manghahasa* (tool sharpener), the sellers of *balut* (incubated duck fetus eggs) and *taho* (soybean curd with tapioca and syrup) and other mobile cottage industry microbusinesses. The independent trash men buy or simply collect recyclable paper, bottles and plastic to resell to junk dealers, maybe even back to Coca-Cola factories. Larger scale garbage collectors, with proper trucks and stuff,

outsource the sorting service to junk shops or take it upon themselves for maximizing profit or simply bring unsegregated trash to landfills, where hundreds of informal dwellers – who may also live on these mountains of trash – pick doggedly through mountains of waste, mining for monetizable objects, relying on luck and persistence.

Chamba, which is something like luck, also affects *diskarte*. Your efforts to make *diskarte* always require some element of luck, fatalistic and somewhat effortless auspiciousness. When you live so close to want and have so much faith in the supernatural, the idea of life becomes a set of bets you may win or lose – so you roll the dice and pray for favour as a natural component of action.

The last particularity of *diskarte* involves the concept of resilient humour. A not-so-pretty guy can get a hot girl with the power of his *diskarte* – his humorous and engaging conversation. Same goes for site-specific design solutions. My recent favourite *diskarte* find is a bench made for a patch of sidewalk that had both an elevated and depressed area. So they built a bench with one set of legs shorter than the other so it could be positioned, presumably, to maximise the hours of shade and not be in the way of passers-by. Though, maybe they just liked the view better sitting in that direction. It's a funny looking thing and you can't help but crack a grin when you see it. If you see it, that is. Often, we take for granted these tiny moments of wry ingenuity.

Decolonising local aesthetic does not mean returning to some idealistic, precolonial, tribal imagery, as if every Filipino had the right to appropriate indigenous culture because that's the only thing they consider 'pure' or decolonised. Just because we are brown, doesn't mean we belong to these groups. Just because some of the Aytas or Mangyan may identify as Filipino, doesn't mean we have a right to claim their culture as ours and *halo-halo* (mix-mix) it to our intra-culturally gentrified tastes. This is not to say that appropriation, mestizaje, creolization is never an enriching experience. It can be if it redistributes the locus of power. More than departing entirely from any pre-colonial influence, the way we've approached decolonising (and it pains me that this project-word has been run through the mill so consumptively by the Western world, to the point that it's now demodé, as if emancipation were a biennale fashion trend of inconsequential shelf-life) through print and making public is by encouraging tenderness for the vernacular, everyday aesthetic influences. The stuff you see in lowbrow design at street level. The further away the vernacular designer's technical knowledge is from Western or Northern processes – hand-made, non-computerised production, for example – the greater the chance of mispronunciation. A step towards decolonisation is not denying that these connections to the occidental aesthetic exist, but rather a

shift in the perception of value: what is local, however uncouth, is not of lesser value. It does not merit a white- or west-washing. The local vernacular does merit close study and rigorous critical framing. Decolonising local aesthetic is an exploration of what is happening, what is being uttered now. It is not only a reaching into the past for a root of unsullied, idealized cultural purity that none of us can achieve. It is a commitment to the present for clues as to who we are – a making visible of our current face without shame for its developing nature.

TRACK 5 Mash-Up

SAMPLE

Title	Linton Kwesi Johnson gave poetry back to the people
Artist	Percy Zvomuya
Album	Mail and Guardian (Africa's Best Read)
Link	https://mg.co.za/friday/2020-07-12-linton-kwesi-johnson-gave-poetry-back-to-the-people

Lyrics [Excerpt]

It's no exaggeration that Linton Kwesi Johnson, who went to Britain from Jamaica at the age of 11 to follow his mother, part of the Windrush generation, did more than most to make black "cool" in Britain and beyond. In his music and poetry, he not only threw orthographical conventions by the wayside – "Inglan" for England, "revalueshanary" for revolutionary – but with songs like *Sonny's Letta*, LKJ put at the centre of British attention the ignominy and hardship of the black experience in the United Kingdom.

In this hymn, Sonny is writing to his mother from Brixton prison relating his experience of how cops came up upon them as he and his friend Jim were waiting for a bus, "not causing no fuss." Without provocation, "Out jump tree policeman/All a dem carryin baton/Dem walk straight up to me and Jim." It is then that Sonny fights back, resulting in the death of the cop.

"It's winter 1980. I am 13, 14 and there is something in LKJ's voice. You can't quite figure out a lot of what he is saying, because of the Caribbean English he is using, but we could figure out it was anti-authoritarian. There is something about the voice, the defiant tone." The standard fare that he had grown up listening to was pop on the radio and his father's jazz collection. "You listen to *Sonny's Letta* and you say, what the fuck? This is a completely new thing. How is this possible?"

Title	Political Songs: Dub journalism, a cultural weapon
Artist	Charles Leonard
Album	New Frame Magazine
Link	https://www.newframe.com/political-songs-dub-journalism-cultural-weapon

Lyrics [Excerpt]

Linton Kwesi Johnson is famed as the inventor of dub poetry, but his ability to take history and make it relevant – as he does in 'Reggae Fi Peach' – makes him more of a journalist.

While based on the toasting (a style of lyrical chanting) of reggae DJs such as I-Roy and U-Roy, riding with vocal braggadocio over riddims, LKJ wrote the poetry first, then it was set to reggae music.

It was serious poetry, using the language of the black British working class to chronicle their lives of racist oppression. That it was combined with languid dub made sense. LKJ's phonetic poetry sounds like music: you nod your head to it, you tap your foot to it. It makes you sway. It is deeply political poetry that makes you think, sing along to it and take action. It's not poetry for rarefied elite spaces. It's generous performance protest poetry made to be heard, not only read.

TRACK 6 Mash-Up

Title	Inglan is a Bitch
Artist	Linton Kwesi Johnson
Album	Bass Culture
SAMPLE 1	VOICE ONLY
	https://youtu.be/Zq9OpJYck7Y
SAMPLE 2	MUSIC ONLY
	https://youtu.be/isMjvRpAckU?t=218 (start at 3'30")

Mix Notes

Play Sample 1 (a capella version of *Inglan is a Bitch*) for a few seconds, allowing its cadence to fall. Then play Sample 2 (from 3'30" onwards, instrumental outro of *Inglan is a Bitch*) under Sample 1, allowing the music to build a rhythmic texture. After a few seconds, mute Sample 2. Repeat

process 2 or 3 times, taking care to allow a capella and scored readings space to breathe.

TRACK 7

Title Chorus
Artist Clara Balaguer
Album Vernacular Language Toolkit

Lyrics [Excerpt]

To speak of the vernacular is precisely that: to speak, to inhabit the present, what is contemporary. Nathalie Hartjes of Showroom MAMA spoke to me on the sidewalk in front of the gallery she runs. What she perceived to be the fundamental characteristic of the vernacular is contemporaneity. The vernacular is temporally urgent, it is here now, it exists as a snapshot of the present.

Perhaps the vernacular can be described as that which goes ahead of writing/being recognised as knowledge production by on high, and just barely escapes being imprisoned by inscription/legitimisation/the possibility of being studied in hermetic environments. Images of Professor Higgins in *My Fair Lady* trying to phonetically represent, with symbols that seem incomprehensible to a violet seller such as Eliza Doolittle. Eliza is the speaker of the vernacular tones Higgins studies with a mix of fascination and condescension. Any attempt to represent, in visual terms, languages that escape propriety involves transcription in symbols esoteric to those who actually generate the language. Or it involves the creation of indexes that are incomprehensible to the "masters" the language is meant to evade.

Proper language wants to stand still. It is backed by (presumably) centuries of practice that no longer want to practice. It is a conservative institution. Proper language is a canon protected by royal academies known for their aversion to history being made, being lived before their eyes or, in this case, their ears. History being made means the academy is being toppled, displaced. The academy refuses to recognise the vernacular because it is popular. Does the academy feel unloved in comparison? Or perhaps it sees the loss of its control as impending death. It is gripped by its own morbido.

To be liberated from this subordination and the crushing self-loathing it engenders, the vernacular must assert itself as transcendent. It must

continue to utter itself into existence, it must drone and ramble, leave its fragmented body as a whole voice, and occupy. Its audience is the ordinary.

SAMPLE

Artist   Percy Zvomuya [Ibid]

With the PEN Pinter Prize in the bag and as one of two poets on the Penguin Classics list, how much more mainstream can one get? Yet Linton Kwesi Johnson is getting mainstream attention, not as a sellout but on his own terms. In 2008, he told *The Guardian* newspaper that mainstream acceptance was "great. But they recognise me, not the other way round. Some black and Caribbean poets seek a kind of validation from these arbiters of British taste. But they really didn't exist for me. I was coming from a position of cultural autonomy. I did my own thing, built my own audience and established my own base. My audience was ordinary people."

TRACK 8

Title   What I Say Goes
Artist   Steven Connor
Album   Dumbstruck: A Cultural History of Ventriloquism
Link   https://www.dropbox.com/s/m3jwa6r4iir5u89/Steven%
                 20Connor_Dumbstruck_A%20Cultural%20History%20of%
                 20Ventriloquism.pdf

Lyrics [Excerpt]

Nothing else about me defines me so intimately as my voice, precisely because there is no other feature of my self whose nature it is thus to move from me to the world, and to move me into the world. […] The voice takes up space, in two senses. It inhabits and occupies space; and it also actively procures space for itself. The voice takes place in space, because the voice is space, [which] far from being the neutral or unchanging background for human actions, the mere space in which action takes place, is actively and dynamically produced, under differing historical conditions.

Historians of the passage from orality to literacy have suggested that the most important difference between a culture based upon sound and

one based upon sight lies in the relation of language to temporality. For literate or, so to speak, 'sighted' cultures, words are thought of as forms of record, signs capable of capturing bits of the world and of experience, and holding them in place. In aural-oral cultures, words are events; in visual-literate cultures, they are mnemonic objects.

Don Ihde suggests that the value of sound, and of an intensified awareness of it, is to restore us to a sense of being in the middle of the world, an intuition confirmed by Walter Ong, who suggests that '[s]ound situates man in the middle of actuality and in simultaneity, whereas vision situates man in front of things and in sequentiality'. The 'acoustic space' in which the oral-aural individual finds himself, Ong continues, is 'a vast interior in the center of which the listener finds himself together with his interlocutors'.

[V]entriloquism has an active and a passive form, depending upon whether it is thought of as the power to speak through others or as the experience of being spoken through by others. The history of ventriloquism reveals the complex alternations between these two contrasting possibilities. Making sense of this history entails making sense of the power of unlocated or mobile voices,

In the pre-scientific conception of the body of the late classical and medieval periods, the body is seen as both open to and in complex interchange with manifold external influences, agencies, and energies, natural, divine, and demonic. One might call such a conception of the body's relationship to its various environments a conception of 'implicated space'. In such a conception, the insides and the outsides of things are not so powerfully distinguished as they are in later conceptions; insides and outsides change places, and produce each other reciprocally. We will see in later chapters how speech, and especially inspired, ecstatic, or possessed speech, belongs to such an economy of the body[,] which is not located so much as distributed in space.

TRACK 9 Mash-Up

SAMPLE

Title	Incantations
Artist	Hawk Eye
Album	[Single]
Link	https://youtu.be/mgDVa_Gfq1o

Mix Notes

Play until approx 0'55"

Lyrics [Excerpt]

When these lyrics hit your ear, they interfere with what you hear
Cause Hawk Eye's back attacking queers
These tracks are packed with facts, my dear
My tongue attracts you with its clear
Combat vernacular skill
Cause even Dracula can feel
My fucking Black Magick is still
Much too real for him to kill
Powers I wield Seal the Deal
Before the Incantation's done
I probably will reveal I'm thrilled
To put the Devil in his place
And Make several different Faiths
Reassess the situation
All Creation hesitates

SAMPLE

Title	VLTK Bridge
Artist	Clara Balaguer
Album	Vernacular Language Toolkit

Mix Notes

Mute previous track abruptly after excerpt is done

Lyrics [Excerpt]

A word of caution to would-be lovers of the vernacular. Alterity makes no saints. Deep dive into the world of obscure and popular hip-hop, searching for the word vernacular reveals a quagmire of masculinity, much of it toxic. The noble savage is a myth with a shadow side. Patriarchy in communities of colour replicates as we speak. Not all of what is spoken in the vernacular, in languages marginalised, carries necessarily within it the key to liberation. The irony of colonialism is the vehemence with which its boot heel is caressed by the trodden.

TRACK 10

Title   De Vulgari Eloquentia
Artist   Dante Alighieri
Album   [Single]
Link   https://warwick.ac.uk/fac/arts/modernlanguages/academic/
lines/community/kenilworth/term2-wk9-dante-reading_2.pdf

Lyrics [Excerpt]

** **I shall try to say something useful about the language of people who speak the vulgar tongue, hoping thereby to enlighten somewhat the understanding of those who walk the streets like the blind, ever thinking that what lies ahead is behind them. I call 'vernacular language' that which infants acquire from those around them when they first begin to distinguish sounds; or, to put it more succinctly, I declare that vernacular language is that which we learn without any formal instruction, by imitating our nurses. There also exists another kind of language, at one remove from us, which the Romans called gramatica [grammar]. The Greeks and some – but not all – other peoples also have this secondary kind of language. Few, however, achieve complete fluency in it, since knowledge of its rules and theory can only be developed through dedication to a lengthy course of study. Of these two kinds of language, the more noble is the vernacular: first, because it was the language originally used by the human race; second, because the whole world employs it, though with different pronunciations and using different words; and third because it is natural to us, while the other is, in contrast, artificial. And this more noble kind of language is what I intend to discuss.

TRACK 11

Title   Chorus (What eye have learned from lyrics.com)
Artist   Clara Balaguer
Album   Vernacular Language Toolkit

Mix Notes

Read in spoken word style

Lyrics [Full]

Vernacular rhymes with Dracula
Vernacular rhymes with spectacular
Vernacular rhymes with fuck yeah
Vernacular rhymes with slappin ya or grabbin ya or smackin ya
Vernacular rhymes with lapping up and blackin up and addin up
Vernacular rhymes with tarantula
Vernacular rhymes with Nissan Maxima
Vernacular rhymes with Honda Accura
Vernacular rhymes with scapular
Vernacular rhymes with Africa
Vernacular rhymes with particular
Vernacular rhymes with formula
Vernacular rhymes with immaculate
Vernacular rhymes with amateur
Vernacular rhymes with cracker
Vernacular rhymes with spatula
Vernacular rhymes with stamina
Vernacular rhymes with mathematical
Vernacular rhymes with parabola
Vernacular rhymes with Flux Capacitor
Verna, from the Latin that Dante eschewed, means home-born slave.
Vernacular is the language of those born into slavery.
It is the forced poetic of those who must hide their expression in the veil of scream.
It is that which is produced with the intent to elude detection.
It is that which is produced on the outskirts of the professionalized, the standardised, the rigid and embalmed bodies of knowledge that proclaim themselves the only source of it.
The vernacular is a personal intimacy with oppression and with the ability to find song in it.
The vernacular is the hidden word that bides its time, because it knows its time is nigh.
The vernacular is the sound of history being made through politics that are deeply personal, honest, un-artificed.
It is what is common, which is the closest we will get to the universal. End (instead of start) with the seed.

SAMPLE

Artist [Ibid] Charles Leonard

Linton Kwesi Johnson's poetry is […] fundamentally about oppressed peo-
ple making history. He takes very particular history and makes it relevant
to people around the world. "I still begin with the particular, and hope to
make it universal."

TRACK 12

Title	VLTK Coda
Artist	Clara Balaguer
Album	Vernacular Language Toolkit
Link	https://vimeo.com/641398695/68bfe12894

Mix Notes

Ad-lib about the template-driven software used to create this video.
Templates, often built into software as native features, are built for
those who haven't a high-level understanding of the technology being
used. Long dismissed by professional designers because it is at the
reach of the layperson and thus not indicative of elite and exclusive
products, services, markets, and aesthetics. Using templates and simple,
commercial software (humble means) to create critical value. Also, an
interesting look at how AI interprets general meaning of a text laden with
obfuscatory spellings.

Lyrics [Excerpt]

Writing From an Eye That Finds Ewe
A prose poem for the Studious Secretary-Scribe
"Eye will always love ewe."
Dolly Parton

To narrate from the voice of the eye is something the ivory tower cannot
quite digest. There is something about the eye that speaks for itself and
not on behalf of an imagined audience, or a fabricated constituency, or
an imagined neutrality that seems threatening to the canon. Eye can
understand this fear. The eye is an inherently unstable position from which
to be, to hold thought, or to grasp reality. In order to triangulate a reliable
position, the point from which the eye departs must be stable, a fixed

coordinate upon which to build a fundament of understanding. However. The eye cannot guarantee a stable sense of itself. The individual subject cannot fully grasp that which most eludes its line of sight: the eye cannot see itself. It must, thus, labor from the point of doubt. An eye that is certain of what it sees thinks too highly of itself.

The eye that works to be seen, and nothing else, is blind to its own position as member of a body, a constituency of other senses, that enrich the map of perception eye am able to draw. The eye that works to see beyond itself is a tribute to the flesh that gives it purpose.

The eye is built to grasp everything "else," outside of its body, outside of its lens. The eye's function is to understand itself in relation to a landscape, inhabited by other eyes.

The only eye that sees itself as it looks on the world is one that is ill. Clouded vision results from injuries to the ego as from lesions of the organ. The whole eye sees past itself, does not perceive the boundary between itself and the rest of the world. It is this borderless and self-unconscious eye from which our words must be spoken, which is to say, written.

The eye is triggered.

The eye triggers.

When writing from the eye, when the eye lifts the veil that obscures it from the world, it becomes vulnerable to attack. How to speak veiled, with a curtain to shield. Or to at least have the illusion of a shield. To be lidded from the eyes of others, from the dust of the world. The unlidded eye, the unfiltered voice of one's trauma is a difficult sound for the writer to bear, for the reader to witness, for the eye to have witnessed.

HEARING EWE

Ah, but ears have no lids, as Steven Connor writes and as my friend Renan Laru-an has also said. The ears cannot shut ewe out. When eye think of the ewe that is conjured where conflict escalates – the ewe that an irritated eye beholds – the figure of the ewe departs from the gentle. Non-violent communication calls for the effacement of the ewe, which can be perceived as accusatory. Non-violence calls for speaking from the personal experience of an eye that doesn't judge, accuse, or assume motives for the actions of a ewe.

Eye will have to remember, next time, to picture the homonymous image of ewe – a soft, fuzzy sheep-mother jumping over fences made of dreams – whenever eye am addressed as a ewe under duress. The ewe is not always rapacious mob, imagined thief, aggressor. How can eye summon a ewe without corralling it in fear? The eye that sees the ewe behind behaviour eye fear cannot but approach this ewe with some degree of tenderness. How can the eye, imprisoned in explication, in as-
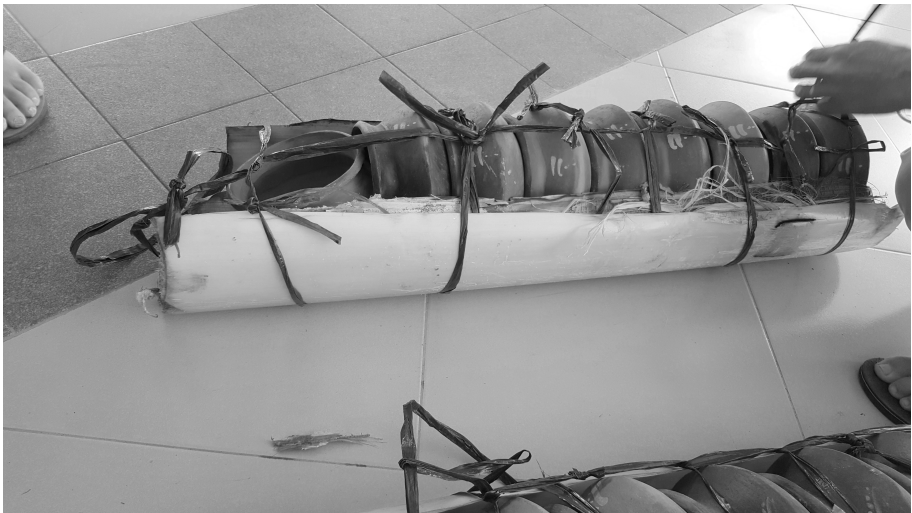
† 17

sessing and judging, become all ear instead, an implicated listener? How can eye hear ewe?

TRACK 13

Title   I Will Always Love You
Artist   Whitney Houston
Album   The Bodyguard OST
Link   https://youtu.be/3JWTaaS7LdU

Mix Notes

Play full song, sing along. AND EEEEEEEEEYYYYYYYEEEEEEEEE…

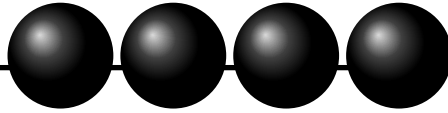Local market supplier banana trunk and plastic tie diskarte, photo by OCD

Pilay [disabled] bench diskarte, photo by OCD

Saw cover diskarte, photo by OCD

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Turnabouts and deadnames:shapeshifting trans* and disabled vernaculars

Ren Loren Britton

So here I am
  in the hallway again. Chain motel. Nondescript corporate
  wallpaper
  of a beigey patterned variety. Gender is the room
I see myself walking into, is all the rooms, any room, the number,
the key

Corresponding, and of course the whole
world's in there. Of course if I want to talk to almost *anyone*
I have to go in. Fuck![1]

<div align="right">

Ari Banias
"At Any Given Moment"

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[1] Ari Banias, "At Any Given Moment," in *Troubling the Line: Trans and Genderqueer Poetry and Poetics*, eds. TC Tolbert and Trace Peterson (San Francisco: Nightboat Books, 2013), 61.

This is an aching archive—the one that contains all of our growing grief, all of our dispossessed longing for the bodies that were once among us and have gone over to the side that we will go to too. When I told you that I will probably haunt you, you made it about you, but it is about me. The opposite of dispossession is not possession. It is not accumulation. It is unforgetting. It is mattering.[2]

<div align="right">

Angie Morrill, Eve Tuck,
and the Super Futures Haunt Qollective
"Before Dispossession or Surviving It"

</div>

Vernacular comes to matter in the dictionary within language and architecture. In language defined as "using a language or dialect native to a region or country rather than a literary, cultured, or foreign language," and in architecture defined as "of, relating to, or being the common building style of a period or place."[3] These definitions surface a relation to community (i.e. what people one comes from) and place (i.e. what relations are from that context). Reinventing material-discursive worlds that come to make the vernacular and actual conditions of possibility for trans* and disabled life is the community of thought, practice, and life that this writing begins from. This means practicing "nothing about us without us" politics,[4] tying ideas of "liberation" to the liberation of all BIPOC (Black, Indigenous, People of Colour) trans* women,[5] analysing power differences,[6] and upholding non-compliant politics as desirable.[7] Moving from a position spelled out by Disability Justice and following articulations from crip technoscience and trans*feminism, this article seeks to centre the experiences of those most impacted. Disability Justice is a capatious paradigm that "value[s] our people as they are, for who they are, and understands that people have inherent worth outside of capitalist notions of productivity."[8] In this way,

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2   Angie Morrill, Eve Tuck and the Super Futures Haunt Qollective, "Before Dispossession, or Surviving It," *Liminalities: A Journal of Performance Studies* 12, no. 1 (2016): 2.

3   https://www.merriam-webster.com/dictionary/vernacular

4   Leah Lakshmi Piepzna-Samarasinha, *Care Work: Dreaming Disability Justice* (Vancouver: Arsenal Pulp, 2018).

5   Emi Koyama, "The Transfeminist Manifesto," in *Catching A Wave: Reclaiming Feminism for the Twenty-First Century,* ed. by Rory Dicker and Alison Piepmeier (Boston: Northeastern University Press, 2003).

6   Cyd Cipolla, Kristina Gupta, David Rubin, and Angela Willey, *Queer Feminist Science Studies: A Reader,* (Seattle: University of Washington Press, 2017).

7   Aimi Hamraie, *Building Access: Universal Design and the Politics of Disability,* (Minneapolis: University of Minnesota Press, 2017).

8   Sins Invalid, *Skin, Tooth, and Bone: The Basis of Movement is Our People*. (Sins Invalid,

"access[ibility is] a frictioned project requiring decolonization and racial justice."[9] Access is the project within which trans* and Disability Justice coalesce and this why I bring Disability Justice and trans* theory together when thinking about trans* vernacular practices. Meanings of place, infrastructure, and community in this article swivel into each other through two intersecting and intersectional[10] sites where vernacular languages come to matter specifically: What does it mean to create conditions of flourishing for trans* and disabled lives in technoscience?[11]

Following vernacular-as-in–deadname and vernacular-as-in–what-did-you-say, this article focuses on trans*gender deadnames as a praxis of misfitting that matters and responds directly to the problematics of linguistic and actual erasure. Readers will follow a trail through Jara Rocha's theory of "kingdom dysphoria," Willow Hayward's web plugin Deadname Remover, and Danielle Braithwaite-Shirley's project *the BlackTransArchive.* These examples open pathways through reconfiguring trans* deadnames and consider how colloquial language when brought next to systems can be elided (omitted or joined) and looped back in to make openings, frictions, and other trails again and again…. and… again… again….and again, and again, and… …. ...... …….. ………

Living with (the) dead(names): naming edges

2016).

[9] Aimi Hamraie and Kelly Fritsch. 2019. "Crip Technoscience Manifesto," *Catalyst: Feminism, Theory, Technoscience* 5, no. 1 (April 2019): 1–34.

[10] Kimberlé Crenshaw, "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory, and Antiracist Politics," *University of Chicago Legal Forum,* no. 1, 1989: 139–68.

[11] Trans* as in trans*gender studies, accounts for the fact that gender as it is experienced is more varied than can be accounted for by binary ideologies. See: Sandy Stone, "The 'Empire' Strikes Back: A Post-Transsexual Manifesto," 1987, first presented at "Other Voices, Other Worlds: Questioning Gender and Ethnicity," Santa Cruz, CA, 1988; Koyama, "The Transfeminist Manifesto," 2003; Susan Stryker (ed.), *The Transgender Studies Reader*, (London: Routledge, 2006).

The asterisk is taken to signify an opening of trans*gender to a greater range of meanings. Avery Tompkins, "Asterisk," *Transgender Studies Quarterly (TSQ)* 1, no. 1–2 (May 2014): 26–27.

Technoscience is defined as the co-production of science, technology, and political life. See: Sheila Jasanoff, *States of Knowledge: The co-production of science and social order* (London: Routledge, 2004); Michelle Murphy, *Seizing the Means of Reproduction: Entanglements of Feminism, Health, and Technoscience* (Durham: Duke University Press, 2012).

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DEADNAME as defined by the Digital Transgender Archive is: "A name that an individual no longer uses or identifies with. Deadnaming is the use or revealing of a person's deadname without their consent, often with harmful intentions."[12]

Recently I changed my name again. With my first name change I shifted my name from something femme-legible in one context into a more gender-not-normal (as Hannah Gadsby would call it[13]) way of being called. For the past five years, that name held despite movements because it felt like a quick fix, just enough of a differentiation from my original dead-name, a kind of living with the old in a trick of reformulated spelling. For a while this second name was fixed into a sign for me but over time that sign hasn't lasted.[14] My second name hasn't held me through a move to a different language and geography. These significations didn't hold in a new environment. Over time, I realised I never got to really choose a "new name" because of this spelling trick. I went with what began to feel like an easy adaption, making it more convenient on other people, as though this slightly different formulation of my name would give me enough space. I have realised, it didn't.

In her article "Misfits: A Feminist Materialist Disability Concept," Rosemarie Garland-Thompson writes, "Every body is in perpetual transformation not only in itself but also in its location within a constantly shifting environment. […] The material particularity of encounter determines both meaning and outcome."[15] The meaning and outcome of my name in my new context, what people *here* call me, and the kinds of playfulness that I could allow myself with my name have shifted and become more porous since my move. In this way my name and naming as a practice has come to define an edge of transformation. My current name in transformation is Ren and thank you for reading – it's a pleasure to meet you. In my experience my name has acted as more of an interface that has continued to need updates, maintenance, and care. As my gender, presentation, and context have reshaped, I'm reminded of Ruth Wilson Gilmore's assertion that "edges are also interfaces."[16] Accumulating deadnames as a trans* person and interacting with bureaucratic systems and digital interfaces that

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[12] "Glossary," *Digital Transgender Archive*, 2021, https://www.digitaltransgenderarchive.net/learn/glossary. Accessed November 16, 2021.

[13] Hannah Gadsby, *Nanette,* comedy performance, Netflix, 2018.

[14] cf. Cyrus Grace Dunham, "A Year Without A Name," *The New Yorker,* August 12, 2019, https://www.newyorker.com/magazine/2019/08/19/a-year-without-a-name. Accessed November 16, 2021.

[15] Rosemarie Garland-Thomson, "Misfits: A feminist materialist disability concept," *Hypatia* 26, no. 3 (2011): 591–609.

[16] Ruth Wilson Gilmore, *Golden Gulag: Prisons, Surplus, Crisis and Opposition in Globalizing California* (Los Angeles: University of California Press, 2007).

presume name-stability is proving to be a sometimes funny, sometimes painful, and always confronting experience.

Vernacular deadnaming and fixed categories

When unfolding what vernacular language means in relation to deadnaming, I'm thinking about how language is a very quotidian[17] necessity, which becomes violent when filtered through numerous bureaucratic institutional forms. Through my processual transformation, my deadnames haunt me through the bureaucratic forms, (bank, identity, digitised, etc.) cards, (COVID-19, academic, etc.) certificates, and (email, telephone, etc.) digital trails.

These bureaucratic interfaces of my everyday life inescapably produce multiple examples of what researcher Jara Rocha calls "kingdom dysphoria," defined as "the harm caused on all living and non-living entities as a result of the assignment of fixed categories, taxonomies, species and kingdoms."[18] Accessed 16 November, 2021. Kingdom dysphoria captiously considers the harm caused through binary sex assignment as well as the ways in which that binary sex assignment is carried through the interfaces which presume fixity. The labour that sustains this fixity is immense. Labour that is practiced through the labour of bureaucratic processes themselves, and through the labour of institutional practices that require time, and the labour of the people who require consistence across contracts, banking information, and email signatures. The immense labour it takes to produce a legible singular identity across contexts. This labour, spent on seamlessness of individual identities across systems directly limits the legibility of trans* experience, which to be clear cannot and should not be contained, and quite literally labours towards checking boxes rather than towards breaking them. Through multiple bureaucratic interfaces where stability is assumed, inputting a name is to fit it and fix it as though it is permanent. The process of fitting or fixing it to input another name then becomes nearly impossible, for example with visa registrations, health insur-

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[17] Referencing Tina Campt's incredible work *Listening to Images* while thinking about the quotidian is an effort to say that the quotidian is not only about what happens everyday, but further understanding this everdayness as "a practice honed by the dispossessed in the struggle to create possibility within the constraints of everyday life." Tina Campt, *Listening to Images*. (Durham: Duke University Press, 2017), 4. So to think of quotidian, vernacular trans* language in this sense is also to consider how to remake this language with less violence and more flourishing possible.

[18] Jara Rocha, 2021 "Kingdom Dysphoria," *Biofriction*, Hangar. July 22, 2021. Available at: http://jararocha.blogspot.com/2021/07/kingdom-dysphoria-biofriction.html

ance documents, banking forms, or signing a lease or sublet agreement for housing. The bureaucratic check boxes of everyday living do not account for one name, and then another. The imagination stops quite quickly in considering what contextual naming might mean when met with digitised, bureaucratized systems. Instead deadnames haunt spreadsheets: a plethora of quietly waiting rectangles labeled with categories fixed within spreadsheets set up to be *once* populated and therefore made absolutely concrete.[19]

Deadname Remover

Responding to the structurally violent impossibility of fluid fields, the Deadname Remover is a Google Chrome web extension which aims to automatically remove and replace deadnames.[20] This may seem at first to be a trans*-community-vernacular-tool that would enact some level of protection for trans* people living with deadnames online, but I have found that it seems to move too fast as this accessibility plugin plugs in new names and re-writes without hesitation. Echoing what Garland-Thompson calls "the relational component and the fragility of fitting" as it shakily erases relational history through its work.[21] One user from the reviews, Evan Rigel, giving Deadname Remover only one star, writes, "worked too well. FAR too well. I was sending a very important email to my doctor and it was changing the text of the email. Everytime I wrote my deadname (which I am registered under) the extension changed it." and continues…. "what if I hadn't real-

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[19] As researcher Katta Spiel has pointed out in relation to the inclusion of non-binary or trans* people into data sets: databases themselves are increasingly aware of binary gender bias in data sets. Even with this being known, still most research tends to ignore how gender is assigned depending on assumed race via bias seeping into technologies of so called "gender recognition". It is still often the case that data sets are developed with material coming from white people in the case of automated gender recognition. Spiel writes, referencing Os Keys, that all of these approaches for "gender recognition" are actually unfit to identify gender. Automated systems perform as though it is possible to look from the outside and determine someone's gender rather than understanding gender as a self-determined contextual and interpersonal negotiation. Framing gender as though it is possible to "see" what someone's gender *is* further erases or does not detect non-binary people, which in turn produces more exclusion in the case of gendered databases. This is to say that even when gender is made "concrete" within data sets the violence for trans* people is not the only oppressive horizon. See: Katta Spiel, " 'Why are they all obsessed with Gender?' — (Non)binary Navigations through Techno-logical Infrastructures," *Proceedings of the Designing Interactive Systems Conference 2021,* (June 2021): 478–494; Os Keys, Josephine Hoy, and Margaret Drouhard, "Human-Computer Insurrection: Notes on an Anarchist HCI," paper presented at CHI May 2019, Glasgow.

[20] https://github.com/WillHayCode/Deadname-Remover There is also a version of Deadname Remover that works with Firefox.

[21] Garland-Thomson, "Misfits"

ized it had 'corrected' my name? this extension almost outed me, which is DANGEROUS."[22]. Accessed November 16, 2021. For Rigel and others (myself included), the problematics of removing deadnames across all contexts produces disappearances that paradoxically could render unwanted visibility. Further, that communications from so many trans* people become filtered through this plugin begs the worry: What happens when it glitches? And, why is it that the reproduction of fixity, the reproduction of history with the same name and reproduction of present with the same name, the direction that trans* people seem to want? Why is reproducing fixed-ness seemingly the only mode of safety when it comes to gendered embodiment?[23] In order to turn on the Deadname Remover, a user must click a miniature trans* flag. This kind of leaning into trans* identity to subsequently remove it – you literally click on the trans*gender flag to erase one's own trans* history – produces the idea of a stable past where gender-name-congruency is enabled and simultaneously lets the possibilities and difficulties of vernacular complication become sadly erased.

There must be a plurality of ways of living as trans*, intersex, and disabled. Epistemic, practiced, and embodied plurality for trans*, intersex, and disabled people is a reality and without acknowledging this we have have nothing to gain, only to lose. However, the alignment of an identity category (represented by the trans*gender flag) tied to fantasies of "removal" like the Deadname Remover proposes to create a kind of fitting into a rectangular spreadsheet logic that must be resisted. Beginning instead from the political standpoint of misfittin, Garland-Thompson claims that "whereas the benefit of fitting is material and visual anonymity, the cost of fitting is perhaps complacency about social justice and a desensitising to material experience."[24] To use the Deadname Remover then becomes a way to distance trans* individuals from the importance of anti-assimilationist praxis[25] and at its worst will further disappear us from each other.

Additionally, the privacy practices of Deadname Remover seem not

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[22] Evan Rigel, Deadname Remover User Reviews, Google Chrome webstore, September 28, 2020, https://chrome.google.com/webstore/detail/deadname-\%09remover/cceilgm nkeijahkehfcgfalepihfbcag?hl=en-GB

[23] As is evident with so many trans* and intersex artists, activists, and academics, fixity and gendered embodiment can be a site of extreme damage. Challenging this paradigm is the current (October 15, 2021–February 14, 2022) exhibition at the Schwules Museum in Berlin Germany, *Mercury Rising – Inter* Hermstory[ies] Now and Then,* which focuses on the universes and utopias that intersex people have joyfully self-determined.

[24] Garland-Thomson, "Misfits"

[25] Like the ones that Aimi Hamraie, Kelly Fritsch, and Sins Invalid have put forth. Disability justice in their view, points to the "the non-compliant, anti-assimilationist position that disability is a desirable part of the world." Aimi Hamraie and Kelly Fritsch, "Crip Technoscience Manifesto."

secure enough (as though being Google wasn't enough): the plugin openly states that it collects "personally identifiable information" such as name, address, email address, age, or identification number. In the article "Hacking the Cis-tem,"Marie Hicks researches the experiences of trans* individuals and communities who fought to become legible within the UK welfare bureaucratic infrastructure. Hicks recalls how, "the struggle for trans rights in the mainframe era forms a type of prehistory of algorithmic bias: a clear example of how systems were designed and programmed to accommodate certain people and to deny the existence of others."[26] With its insecure privacy practices, Deadname Remover runs the risk of re-inscribing the existing algorithmic biases against trans* people that are proven to already be well written into databases. Deadname Remover gives little hope that to have such extensive information collected by Google would be a good thing – do we really want *Google* to know the deadnames and current names of all of our trans* kin?

Reading Jules Gill-Peterson on deadnames, she writes, "Trans-inclusion into the terms of the dominant system is not good enough."[27] Refusing inclusion and refusing techno-fixes leads me to dreaming about what a haunting-of-deadnames could mean. What about deadnames that follow you around because you want them to, what kind of socio-technical environments would need to be set up so that to be haunted would be desirable, welcome, interesting?

the BlackTransArchive

the BlackTransArchive is an artwork and archive by Danielle Braithwaite Shirley that "stores and centres Black trans people to preserve our experiences our thoughts our feelings our lives."[28] When entering the online archive the first page begins with a black screen moving through a digital field that resembles a road, purple text reads: *WE ARE HERE BECAUSE OF THOSE THAT ARE NOT, WELCOME TO THE PRO BLACK PRO TRANS ARCHIVE, THIS INTERACTIVE ARCHIVE WAS MADE TO STORE AND CENTRE BLACK TRANS PEOPLE….* Based on your identity, different pathways are visible and accessible in the online PRO BLACK

[26] Marie Hicks, "Hacking the Cis-tem," *IEEE Annals of the History of Computing* 41, no. 1 (Jan–March 2019): 20–33.

[27] Jules Gill-Peterson, "My Undead Name," *Legacy: A Journal of American Women Writers*, October 5, 2020, https://legacy-womenwriters.org/2020/10/05/my-undead-name. Accessed November 16, 2021.

[28] Danielle Braithwaite-Shirley, *BlackTransArchive* project page on artist's website, 2020 https://www.daniellebrathwaiteshirley.com/blacktransarchive-com. Accessed November 18, 2021.

PRO TRANS ARCHIVE. Options are: 1. "I Identify as Black and Trans"; 2. "I Identify as Trans"; or 3. "I identify as cis." In my case, I selected option 2 and navigated through the experience as a white trans* person. After navigating through the archive for some time, my path lead me to the "dead name burial site." After arriving to the burial site a character asked me, "You may have a dead name following you, would you like me to bury it for you?" After choosing the option, "Yes, bury my dead name I need it to let go of me," the screen reads with a message: "Dead name removed, it won't haunt you anymore."

I have been thinking a lot about this removal, and thankful for having this option in the context of the really generous *BlackTransArchive*. Conceptualising naming practices as those that need updates, maintenance, and care and then burying a name in the dead name burial site felt like a welcome relief and act of care towards the weight of carrying multiplicity in a context that actively disciplines this. My experience of being deadnamed has become so ubiquitous: every time I travel, open my bank account, check the post box, or apply for anything my name and its permutations unravel. In my access rider[29] I explain that one name is for paying me, one name is for referring to me anywhere public, and now my new name is still spreading yet not incorporated into the doc. Whether I like it or not, I am haunted by my deadnames. While sometimes I luxuriously describe it as a choice to have multiple names following me around, to be honest, if I could change my name easily, I already would have. This haunting is a haunting that is also mattering[30] and it shapes my, and my trans* friends, interactions with systems, and with practices of vernacular language.

In the zine *Sex Time Machine for Touching the Trancestors* by Julian Carter, there is a description of how trans* people might age. Chapter three, "Between Before & After (For Jordan)" begins: "It's odd how queer generations work; one of my housemates is ten years younger than me but he transitioned seven years ago so I'm the baby."[31] It carries on to discuss kinds of temporal pleating that disrupt predictable generational sequences and practices of naming. In this perspective, trans* time[32] produces its own stability created through care, relationality, and invention rather than con-

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29 Access Riders are documents that outline disability and trans* access needs so that institutions can meet these needs and ensure equal access to work. See for example Access Docs for Artists, a resource made by Leah Clements, Alice Hattrick, and Lizzy Rose, https://www.accessdocsforartists.com/what-is-an-access-doc

30 Morrill, Tuck and the Super Futures Haunt Qollective, "Before Dispossession, or Surviving It"

31 Julian Carter, *Sex Time Machine for Touching the Trancestors,* Zine, San Francisco, 1991–2017.

32 Reese Simpkins, "Trans*feminist Intersections." *TSQ: Transgender Studies Quarterly* 3, no. 1–2 (2016): 228–234.

trol. Perhaps a trans* vernacular language that could enact open ended and non-coercive ways would mean to come back to these ongoingnesses of trans* life again…. and again….. and again… and… again… we would come back to more space for living with ongoingness and and and transformation and again… and again change. and again change. More deadnames haunting us with humour rather than with humiliation.

Somewhere between automation and the handmade

Interview with Rosemary Grennan
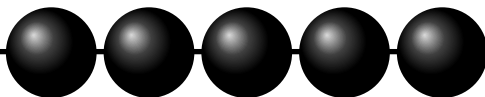
Leftovers is a project that seeks to create a shared online archive of radical, anti-oppressive, and working class movements, and the material traces they have left. The platform aids the dissemination of archived ephemera from these movements, campaigns, and struggles, casting light on histories of resistance from below by opening up archives of radical dissent. Leftovers consists of a website (https://dev.leftove.rs) and an archive backend (https://archive.leftove.rs).

Everyday Technology Press invited Rosemary Grennan for an interview to speak about the Leftovers archive (https://leftove.rs), the range of materials that it holds, and the ways in which MayDay Rooms worked on structuring it all.

> Could you introduce the Leftovers archive?

The project is a collaboration between MayDay Rooms in London and 0x2620 in Berlin. Currently we have nearly 18,000 items, which are scans of original documents, nearly all of which have been OCRed (optical character recognition), meaning that all documents are fully searchable. The kind of material we hold covers all types of political ephemera from pamphlets, posters, and photographs. Although MayDay Rooms initiated the project, Leftovers does not solely consist of our digital collection; it draws

in digitisations from many different sources: from torrent files of 1970s newspapers, to an autonomously-run online collection of the Ultra-Left in France, to Women's Liberation movement material from state archives.

At MayDay Rooms we try to rethink how we work on, and with, archives of struggles, and see our collections as something that should be active in the present through strategies of open access, activation, reuse, and through building the archive as a collective resource. This ethos is something that we have attempted to bring to how we approach our digital archives as well as the digitisation of our collections.

How is the Leftovers archive structured at the moment?

Before going into more detail about the structure of the archive, I wanted to give a little preamble about the thinking behind, and the motivations for, creating Leftovers, as this heavily influenced the structure the collection now takes.

There is quite an emphasis in contemporary archival practices on the digitisation of collections for reasons of both access and preservation. Despite these intentions, access is often still restricted by questions of rights and digital preservation takes a lot of resources (storage etc) that smaller independent archives do not have.

The digital collections that result from archival digitisation projects often simply mirror a physical collection and are there to embellish the catalogue. At MayDay Rooms we wanted to think about what our digital collection could do that is different from our paper collection, and how our guiding principles can influence a digital formation. So we started to think about how digital possibilities of the archive can bypass traditional concerns of preservation in favour of dissemination and truly open access.

We have been inspired a lot by the work of friends and comrades from different "shadow libraries," particularly Aaaaarg, and Memory of the World. There was an initial idea that MayDay Rooms' digitisations form part of these two libraries' collections, and we still host selected material on these sites. However, we soon realised that historical ephemera (posters, pamphlets, flyers, bulletins etc) not only require very particular attention but also present interesting possibilities in regards to a digital archive.

This is also why we chose the name Leftovers; as well as being a joke, it is also a comment on the nature of political ephemera. The book is in some ways a relatively self-contained durable object – it has a blurb, a recognisable author – that doesn't need additional material to become understandable, and its use in some ways is predetermined. Whereas political ephemera has a different temporal scope, it was not meant to endure, and its contemporary use is different from its first production. Its original

intention. The leaflet to mobilise for a protest, the bulletin that communicates actions on a picket line, or newspapers that maintain organisational forms are meant to mobilise quickly and communicate in the moment but not to last. For these reasons ephemera is non-authoritative, and represent fragments of historical moments through different tendencies, so it needs a critical mass of comradely material and different archival strategies to make it understandable.

The structure of our digital collection has tried to reflect this structure, using flat relations between objects rather than hierarchical ones, and developing our metadata categories instead of using inherited conventions. Our collaboration with 0x2620 meant we could further experiment around the different processes and relations a digital archive can facilitate. Although the software Pan.do/ra was originally developed for video, we have worked with Jan Gerber at 0x2620 for the last few years to see if the way in which the software decomposes videos and makes each frame accessible could do the same for digital documents.

Leftover does not only represent MayDay Rooms' digital collection but is rather an "archive of archives" where we have pulled together existing online repositories and resources from all the types of institutes, collections, files, and folders into one platform. At present, materials in the archive come from many different sources and are not usually the only copy of that scan. The metadata around each object always links back to the source that we got it from. We hold material from some sisterly archives such as the Sparrows' Nest Library and Archive in Nottingham, and other material we found from different corners of the internet (torrents, smaller archival collections, state archives). Some of the processing we have done on the documents, and the functionality 0x2620 developed for the archive, has helped us think of different ways of making connections between documents that come from different collections, countries, tendencies, and groups.

I thought it might be good to go into a bit of detail about how we developed one of our metadata fields, "Tactics." As I said, all the material in our archive is OCRed and there is a full text search functionality so that you can search *within* the document, not only for data *about* the document. This might sound a minor technical point but actually is highly significant in opening up digital archives and using the actual document's content as the basis of classification. In Leftovers you can search for a word or phrase and it will bring up every document that includes it. Through this we made a list of different tactics of left and anarchist movements and searched the documents for them. Some of the results are below with their occurrences in the archive:

Occupation (2858)
Rent Strike (164)
Riot (1630)
Picket (1451)
Strike/Grève (3640)
Direct Action (2401)
Rent Strike (170)
Prefigurative (18)
Sabotage (2053)
Armed Struggle (343)
Protest (3399)
Sit-in (905)
Blockade (607)
Pirate Radio (76)
Collective (4584)
Road Block (42)
Boss-napping (4)
Wildcat Strike (124)
Squatting/Squat (614)
Slowdown (46)
Boycott (1367)
Theft (609)
Forgery (1)
Barricades (1310)
March (3850)
General Strike (245)

Some of these are terms that occur too many times or are too broad, such as "Occupation," to be a useful way of filtering an item, but some such as "Rent Strike" are specific enough to be a useful means of linking up documents. We thought that this category of "Tactics" was a useful one to reorientate the collection as something that can be used as resources for current struggles to integrate tactics of the past that might have been forgotten.

> In another conversation we had, you mentioned you worked with Natural Language Processing (NLP) tools for this archive and earlier you mentioned that all the documents have been OCRed. So we are wondering how NLP had been applied to the documents? What influenced the conceptualisation of those operations?

Sean Dockray was the first to use NLP on Leftovers, applying the entity extractor from the spaCy library to help create an index for one of our publications, *Muther Grumble*. He described the process as somewhere between automation and the handmade, and I think that this really characterises the kind of experiments we have been doing with NLP since then. We have used NLP as a research tool to try and get deeper into the documents' content rather than the usual mode of algorithmic analysis, which only looks at the derivatives of the object. The process has definitely brought up more questions around categorisation than answers to it, as it has unearthed many themes, entities, people, and places that we didn't know existed across the collections. From spaCy, we used their libraries to extract arts, events, organisations, and people, and applied these across the entire publication. We are now undergoing a process of sifting through the noise of the results and figuring out what might be relevant to form into different categories, or which names and organisations we should search across the archive.

There have been many different strategies of inputting metadata on Leftovers. Some of this inputting has been automated when data scraping the collection, others have been more of a derive through the collections by those who have knowledge of the material inputting as they go. However, the processing of the catalogue doesn't usually mean the person categorising the item has fully read the document, and this becomes an increasingly impossible task as the archive grows and grows. So although NLP "reads" the document in a very particular, partial, and biased way, the tension between the actual results of the process and the material in the archive has often prompted us to look for different things in the archive and to read it

in multiple ways.

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×   _   □    Open   ▼   ⊡          index-1.txt [Read-Only]          Save   ≡
                                      /tmp/mozilla_rg0
548 The answer
549        Muther Grumble 01.pdf: 6, 13
550        Muther Grumble 04.pdf: 10
551 The article
552        Muther Grumble 04.pdf: 4, 7, 15
553 The fact
554        Muther Grumble 02.pdf: 12
555        Muther Grumble 04.pdf: 2, 11
556 The idea
557        Muther Grumble 01.pdf: 4
558        Muther Grumble 02.pdf: 12
559        Muther Grumble 04.pdf: 13
560 The majority
561        Muther Grumble 03.pdf: 4
562        Muther Grumble 04.pdf: 18, 20
563 The man
564        Muther Grumble 02.pdf: 7
565        Muther Grumble 03.pdf: 10
566        Muther Grumble 04.pdf: 16
567 The men
568        Muther Grumble 03.pdf: 13
569        Muther Grumble 04.pdf: 2, 14
570 The music
571        Muther Grumble 02.pdf: 13
572        Muther Grumble 03.pdf: 11
573        Muther Grumble 04.pdf: 19
574 The point
575        Muther Grumble 01.pdf: 6
576        Muther Grumble 02.pdf: 1, 6
577        Muther Grumble 03.pdf: 10, 16
578        Muther Grumble 04.pdf: 9
579 The police
580        Muther Grumble 01.pdf: 8
581        Muther Grumble 03.pdf: 2, 6, 8, 9
582        Muther Grumble 04.pdf: 1, 4, 14
583 The reason
584        Muther Grumble 01.pdf: 4, 11
585        Muther Grumble 03.pdf: 15
586        Muther Grumble 04.pdf: 3
587 The way
               Plain Text ▼   Tab Width: 8 ▼        Ln 1, Col 1      ▼     INS
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One of the ways of sorting the result of the different NLP scripts was to create word clouds to visually look at the most frequently occurring terms (see above). For example, in the word cloud that showed people, one of the most prominent names was Ronald Reagan, but this data did not fit into any of our categories relating to people, which mainly represent comradely relations. NLP was better at pulling out these known entities like Reagan rather than minor figures in left history, as the libraries have been trained on certain data sets. This could be immensely problematic as a tool of categorisation for an archive of radical ephemera. However, by thinking these relationships through and thinking what to do with this data we came up with the category of "Antagonisms." We thought this showed the archive to be partisan and not a neutral historical collection, as well as establishing an oppositional relation to some of the data that the NLP was producing.

> You've already mentioned that Leftovers came together as a collaboration with 0x2620. Are there more collaborators involved in the making of this archive?
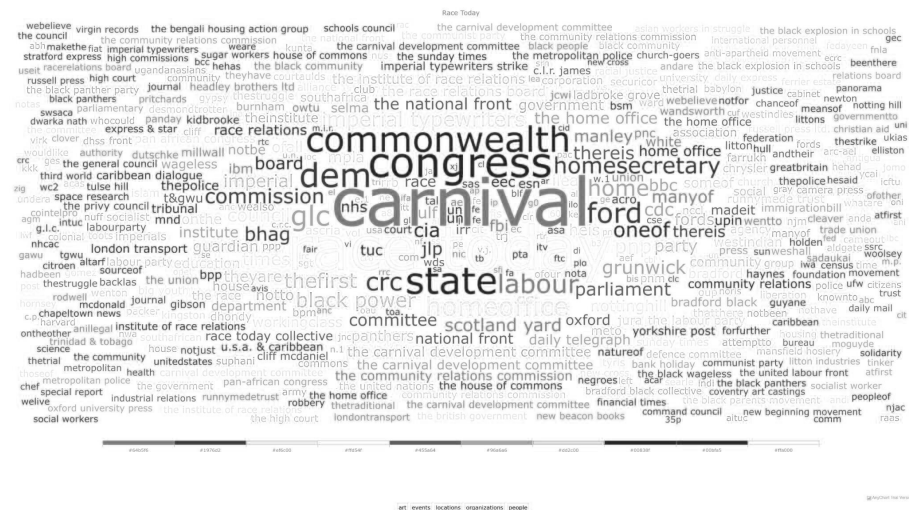
Leftovers was initiated by myself at MayDay Rooms, and was developed in collaboration with Jan Gerber from 0x2620. Anthony Iles from *Mute Magazine* joined the working group in 2020 and has been very active in finding material and inputting metadata. He also helped produce our first online exhibition based on the digital archive called *Print Subversion in the Wapping Dispute* which can be found here https://exhibitions.maydayrooms. org/wapping.We got a small grant to further develop our interface in 2020, and for this we worked with Gemma Copeland and Robbie Blundell from Evening Class, a design collective in London, to design the front end. You can see the work-in-progress version here, https://dev.leftove.rs.

However the wider question of who contributes to Leftovers is a complicated one, as some people contribute without knowing they do so. For example, *The Black Panther,* the newspaper of the Black Panther Party, was scanned at a university in America and then did the rounds on the internet as a torrent. We downloaded it and OCRed the scans and uploaded it to the collection. We were not the ones who scanned it, downloaded it from the university, and distributed it online and the scans are not only hosted on Leftovers, but we felt it was important that it become part of the archive and be freely accessible. Other contributors are comradely archives such as the Sparrows' Nest Archive and Library (UK), Archivio Grafton (IT), Rebel.info (IT), and Archives Autonomies (FR) who we have established relationships with through Leftovers. We hope that through pooling and sharing digitisation, Leftovers will help build a network of archives that share documents and resources.

The reason it is not solely a MayDay Rooms project is that eventually we would like Leftovers to become a shared archive which contains many

active users, with multiple archives and users uploading and maintaining the material in the collection. We see ourselves as custodians of the material in the collection rather than having some kind of exclusive claim.

> Are there examples where the structure of the archive has been negotiated with others? By others we mean collaborators, audiences, but also perhaps creators of the material in the archive.

Although Leftovers has not been officially launched, it is already being used by smaller archives that have only just started embarking on creating digital collections and want to use Leftovers to host their collections and bring their material into conversation with the rest of the archive. For example, we will be running a workshop in November 2020 with Glasgow Housing Struggles Archive, a new project from members of a tenants' union called Living Rent aimed at uncovering Glasgow's hidden history of squatting, rent strikes, and council tenant organisation, to look at how they can use Leftovers to build a resource and take the archive into everyday organising. We hope that by having nascent archives involved, they will also contribute to the process of building relations between documents and, in turn, help us structure Leftovers in a way that works for all collections.

> Can you say a bit more about the authorship of the material itself? How does the archive relate to different forms of authorship, such as collective or anonymous ones?

That's an interesting question and speaks again to the different kinds of metadata fields we developed for Leftovers. The field of "Author" in the collection is almost completely redundant, as most material in the archive is produced by a group, a collective, or is anonymous. This is an indication of what kind of material the collection holds.

Some material is intentionally authored under a group name. In some of these cases the writing of newsletters, pamphlets, positioning papers, and bulletins becomes a form of internally constituting groups, and here writing and action combine as a form of political organisation. Other material remains anonymous or produced under a group name not as choice but as a societal position in relation to the state, whilst other groups are actually a single person masquerading as a group in order to explore imaginary formations. Other group names are actually descriptive tactics such as "The Angry Brigade." With all of these examples anonymity is not merely dropping one's name, but speaks to the complex nature of the document's production. By fore-fronting these relations in thinking through the structure of our collection, we hope that the use of relational metadata categories around production and social movement contexts will help to orientate cat-

egorisation away from authorship.

As well as the anonymous or group producer in the archive, there are the invisible figures that are integral to the political movements the collection is part of. As I mentioned before, through using Natural Language Processing to make lists of all the names that occur *in* the material, we were able to find many figures that have been forgotten and excluded in favour of single authors. Although these are currently only indexes and have not been entered into metadata for the material, it is perhaps a good indication of the thousands of people who produce material and often prop up the category of author, or are behind prominent movement figures.

Leftovers is trying to undo proprietal forms of ownership over the archive in favour of an archive that is a common resource and will eventually be owned in common too. The destabilisation of the field of the author, in favour of a form that acknowledges all those who went into the production of the material, is very much part of this process.

How does the archive support dissemination of its material?

https://twitter.com/ArchivioGrafton/status/1357425808768385025?s=20

ARCHIVIO GRAFTON9
@ArchivioGrafton

una copia del nostro archivio su archive.leftove.rs

→ archive.leftove.rs/documents/grid… ←

quando pubblicate qualcosa in rete lasciate che ognuno possa prenderla liberamente e redistribuirla!

Translated from Italian by Google

a copy of our archive on archive.leftove.rs

→ archive.leftove.rs/documents/grid… ←

when you publish something on the net, let everyone take it freely and redistribute it!

You

8:28 PM · Feb 4, 2021 · Twitter Web App

I really liked this tweet from Archivio Grafton about their material on Leftovers, where they say, "when you publish something on the net, let everyone take it and freely distribute it." It points to the fact that the aggregation of all this radical ephemera is an act of redistribution itself. We only collect things that were part of a political movement and that were shared publicly at the time they were produced, and believe they were produced in struggle and through this are collectively owned.

MayDay Rooms is dedicated to the collective "activation" of historical material – where we aim to not sit passively on archival "holdings." With Leftovers we were really interested in developing tools, and ways of disseminating, integrating, and re-using the collection rather than it just being a repository where material is merely stored. I can't remember who said it, but it's a sentiment that has influenced our approach to an active archive: "The best way to preserve a film is to project it." Digitising a document, making the whole thing freely available, downloadable, and readable is the first step towards dissemination.

One of the publications in Leftovers – *Spare Rib* – was originally digitised by the British Library at huge expense and the copyright was contained through Digital Rights Management. After the UK left the EU, the copyright directive that covered the digitisation no longer applied and the digitisations were taken down. To my knowledge Leftovers now holds the only digital copies of this material, which represents the biggest Women's Liberation publication in UK history. We can see here the fragility of institutional collections that do not commit to open access. We believe that creating collections where you always have access to the scan or object itself is a good step towards facilitating new forms of distribution and back-up that go beyond the original collection.

There is a text called "HyperReadings" (https://samiz-dat.github.io/hyperreadings) by Sean Dockray, Benjamin Forster, and Public Office, which I think really articulates well this idea of a "libraries of libraries," where items are not confined to a single copy in a single universal library but are partially manifest with many different individuals, groups, and institutions. By breaking down categories and ways of collecting that usually confine a document, and using different processes to make connections between what would previously be atomised material, you can begin to circulate material in different ways. All material in Leftovers has a "Source" field that takes you back to the original source of the digitisation, and we hope that aggregating these materials on one platform not only brings them into proximity with one another but also highlights the work of many small independent archives.

Some of the other strategies that could be described at dissemination at the moment are an exhibition of our digital material that I mentioned

before (https://exhibitions.maydayrooms.org) publishing highlights from the archive, a project called MayDay Radio (https://audio.maydayroom s.org), which is an independent collective that use the archive as starting point for audio pieces and experiments. This year we have collaborated with them to do a series of residencies with Leftovers material and the first of these pieces, *Abolitionist A-Z*, will be launched soon.

We have also been working on a collaborative tool for working together on the digital collection and creating new ways of interrogating the material remotely. The tool enables users to take clippings from the documents in the archive, then recombine and annotate them to create "scrapbooks" or montages. We held a series of workshops to test and further develop these tools, and through this co-created different scrapbooks around the topics of Health Autonomy, Abolitionist Struggles, Rent Strikes, and Radical Spaces.

You can see some of the results here: https://dev.leftove.rs/\#scrap book.

torn at the seams: considering computational vernacular

Michael Murtaugh
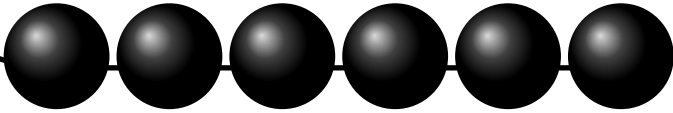
> Processing is a free, open source programming language and environment used by students, artists, designers, architects, researchers and hobbyists for learning, prototyping, and production. Processing is developed by artists and designers as an alternative to proprietary software tools in the same domain. The project integrates a programming language, development environment, and teaching methodology into a unified structure for learning and exploration.[1]

Teaching programming with free software to media design students for years, I've resisted Processing as it has always seemed to me to embody a particular kind of solipsism of digital interactivity and graphics that I want my students to avoid.

Design by numbers

In the fall of 1996, John Maeda joined the MIT Media Lab to replace the recently deceased Muriel Cooper. Cooper was the first art director of the

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[1] Casey Reas and Ben Fry, *Processing: A Programming Handbook for Visual Designers and Artists* (Cambridge: MIT Press, 2007), xxi-xxii.

MIT Press, producing influential designs such as a 1969 catalogue of the Bauhaus and the iconic MIT Press logo, a Bauhaus-inspired stylised graphical rendering of the letters "mitp." Cooper started the Visible Language Workshop, later one of the founding groups of the MIT Media Lab, to research the intersection of publishing, design, and computation.

Our forefathers at the Bauhaus, Ulm, and many other key centers for design education around the world labored to create a sense of order and method to their teaching. Thanks to their trailblazing work, teaching at the university level gradually became accepted as a meaningful and constructive activity. A drawing board, small or large, became the stage for paper, pen, ink, and blade to interact in the disciplined activity that characterized the profession of visual design.[2]

Maeda created the Aesthetics and Computation Group, in part to continue Cooper's research. Maeda developed (with students Tom White, Peter Cho, Ben Fry, and later Casey Reas among others) a software system called Design by Numbers (DBN).[3] It had extreme constraints such as a fixed 100 by 100 pixel size and monochrome-only graphics. The command set is similarly constrained with only two drawing commands for lines and points. Commands like "paper" and "pen," controlling the grey value of background and foreground colours, invoke the materiality of a (pre-digital)

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[2]   John Maeda, *Design by Numbers* (Cambridge: MIT Press, 1999), 19.
[3]   https://dbn.media.mit.edu

print practice. The accompanying print publication also had a square format.

When designing this system for learning basic computational media design, I intentionally limited the set of commands and constructs to a minimal number of possibilities. If I had given you drawing capability beyond a line or setting a dot, the examples could have been more exciting, but the point could not be made clearly because your attention would be drawn to the picture and not to the code.[4]
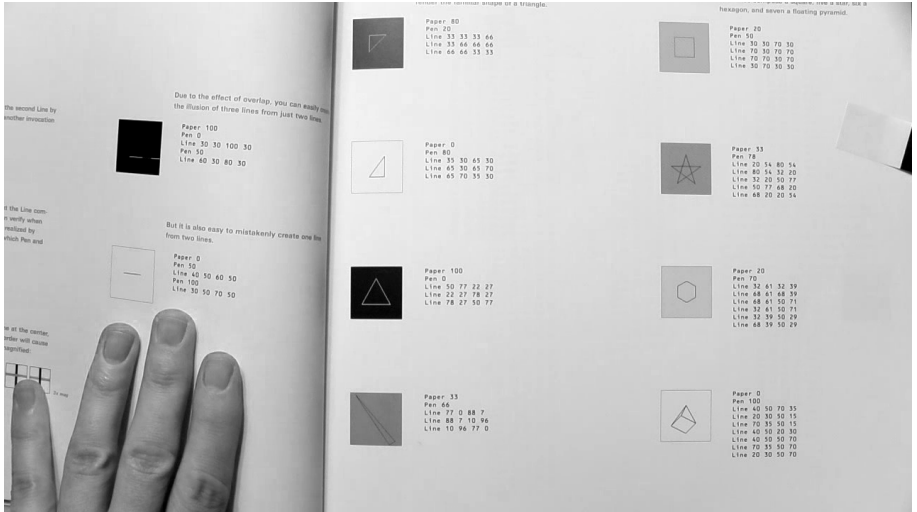

This valorization of "code" over picture is evident in the book spread where a digital image of a vase is presented along with its "code": a sequence of "set" commands describing the image pixel by pixel. Though it's possible that such an image might be produced in this way (discipline!) in practice such images are created by translating a digital photograph using one of a family of techniques known as "dithering" to produce a pixelated image with limited grey values. Here these tools and techniques are unmentioned, with expansive space given instead to the listing of numbers.

I remember sitting with a friend at his Commodore 64 in the 1980s typing lines and lines of "poke" commands with digital data from the pages of home computer magazines to reproduce simple games. These pages would typically use compact representations (like hexadecimal) and include things like "checksums" and bootstrap programs to help you correctly enter and verify the data you entered.

In the case of the DBN's digital vase, the purpose does not seem to be

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4   Maeda. *Design by Numbers*, 144.
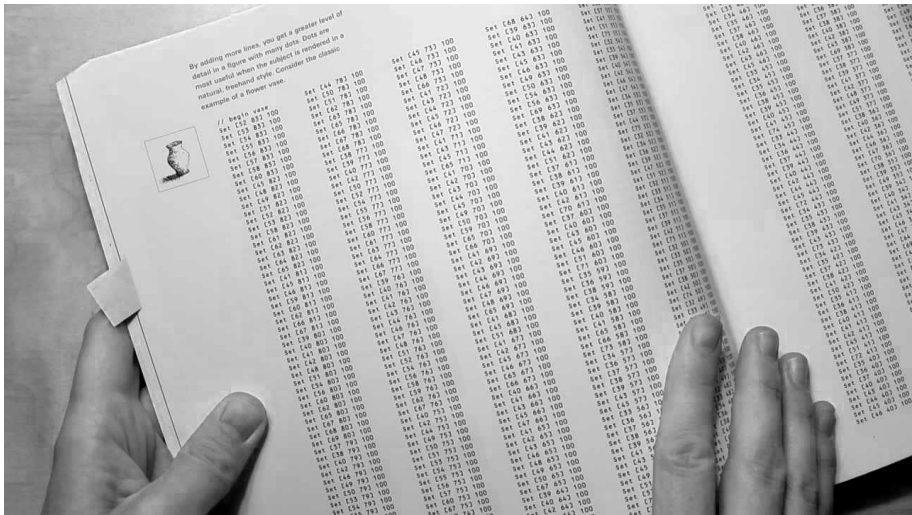
for someone to actually type the numbers in, but rather to fill the pages of a book that seems destined for the coffee table rather than a desktop. Similar to the fields of 1s and 0s still popular as backgrounds of book sleeves and PowerPoint slides to suggest "all things digital," the presentation is gratuitous and misleading in terms of actual practice. Like an observer unfamiliar with Deaf culture confusing the hand gestures of finger spelling with the expressivity (and ambiguity) of actual sign language, the displays of 1s and 0s, or in this case of numeric coordinates and grey values, is a shorthand that refers to computational practices without actually participating in them.

The above is just one example of DBN's lack of historicity. In 1999, the Sony PlayStation and access to the World Wide Web, for instance, were popular phenomena, yet the text seems remarkably devoid of any reference to specific tools or practices. Even Maeda's invocations of historical figures like the Bauhaus and Paul Rand are vague, evoking a sort of nostalgic *Mad Men* universe with the creative young men (those future forefathers) at their drawing boards and a sense of "timeless design values" like a devotion to discipline and order.

At the end of the book Maeda responds to a critique apparently made to him by one of the students doing some of the programming of the DBN system itself. Recounting how a visit to a "university-level Java class for designers […] teach[ing] the finer points of object-oriented programming and bit masking of 24-bit color values" made him feel "lost in all the gibberish," he reasserts his pedagogical approach as an alignment with the

"simplification" that is the "constant goal" of programming.[5] Rather than trying to bridge the gulf between diverse practices, Maeda dismisses that which he doesn't (care to) understand in the name of simplification.

Processing

Processing was born as kind of fork or remake of DBN. Like DBN, Reas and Fry built Processing in Java, a desktop application that exists outside of the web but which can be used to publish sketches as "applets" embedded in a web page and published online. Reas and Fry added commands to work with colour and multiple output sizes, as well as commands to draw basic shapes like circles, rectangles, and triangles.

Processing sketches consist of (at least) two functions: *setup* which is invoked once and *draw* which is invoked continuously; the default frequency being the refresh rate of the computer's display (typically 60 times per second). By using variables combined with input functions allowing access to the mouse and keyboard, graphics can be made dynamic and responsive to the user. In addition, graphics by default are rendered using a technique known as "anti-aliasing" to appear "smoother" and less pixelated.
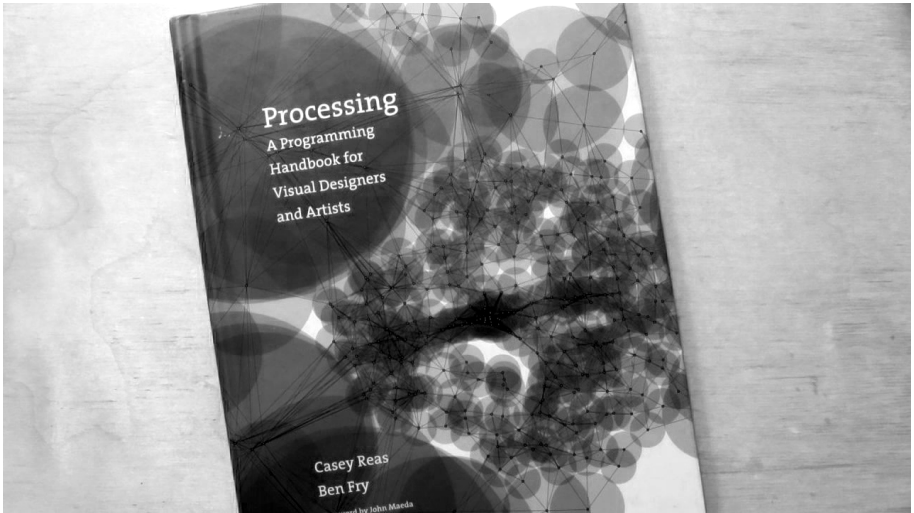

Most of the examples presented in this book have a minimal visual style. This represents not a limitation of the Processing soft-

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5   Maeda. *Design by Numbers*, 252.

ware, but rather a conscious decision by the authors to make the code for each example as brief and clear as possible. We hope the stark quality of the examples gives additional incentive to the reader to extend the programs to her or his own visual language.[6]

Processing: A Programming Handbook for Visual Designers and Artists was published in 2007 by the MIT Press, with Reas and Fry the authors, and a foreword by Maeda. The book comprises over 700 pages and is organised by topics like: colour, control, data, drawing, image, input, math, motion, structure, typography. The book follows the visual style of the DBN book, with small square (mostly) monochrome images accompanying concise listings of code.
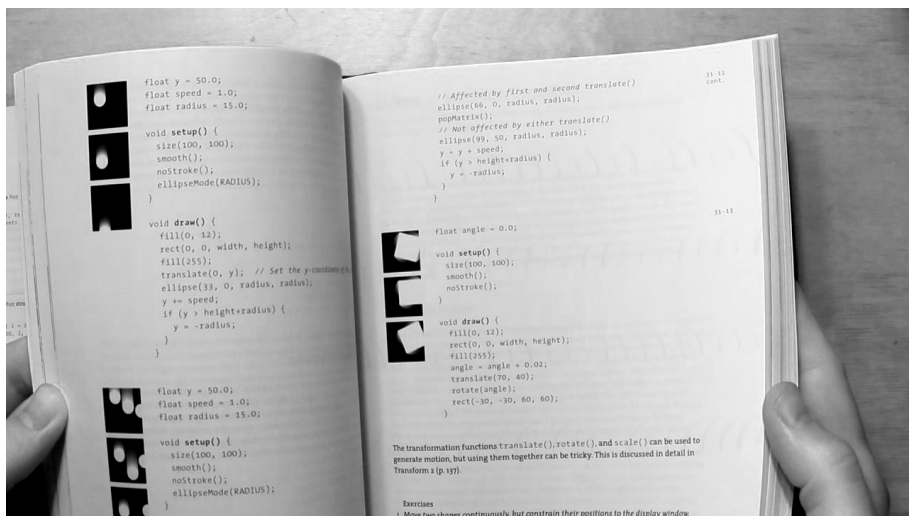
Despite the claim of leaving space for others to bring their own "visual language," and thus an implicit proposition of its own aesthetics as "neutral," Processing embodies a very particular set of values and assumptions. The framework valorises smoothness and fluidity, which leads one to imagine interactivity as that which happens on the surface of a sketch, rather than say in the network, or among collaborators. The mechanism of the "draw loop" assumes that code runs in a negligible amount of time that is less than the refresh rate (and the default 1/60th of a second). This particular, again implicit, relationship with time places the programmer in an adversarial relation with the processor of the viewer's computer and makes it all

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6   Casey Reas and Ben Fry, *Processing: A Programming Handbook for Visual Designers and Artists* (Cambridge: MIT Press, 2007), xxi-xxii.

too easy (certainly for novices) to produce code that makes the viewer's computer struggle and lag.

Unlike DBN, the *Processing* book contains extensive interviews with artists working with computational tools, mostly using a variety of tools outside of Processing like C++, PHP, and Flash. Despite the "minimalism" of the examples, the book's subtitle claims relevance to a broad audience of "visual designers and artists." The link to Processing is often unclear.

There's a strange disconnect where a diversity of visual and computation practices are shown, such as sequential images to make animations, or cellular automata, but the only real link to Processing seems to be as a kind of universal "blank canvas" onto which all kinds of computational practices can be projected.

Another disconnect occurs when one crosses out of what the software makes simple. For example, while it's very easy to make a sketch respond to mouse clicks, responding to a mouse click on a specific shape suddenly involves using Java classes and adding code "hooks" to your draw loop to make sure the pieces work together. While this kind of code is not itself so unusual, the transition is really abrupt because the core abstractions are so simplified: there is no bridge.

Still another disconnect involves processing sketches when published online. Web pages have structures for text layout and content flow, and structural elements (like checkboxes and links) that inherently respond to mouse clicks. There is a built-in standard mechanism (the so-called DOM or document object model) to further customise these behaviors. Process-

ing sketches, even situated in a web page, don't participate or give access to this model, nor does the framework offer the possibility of using alternative graphical elements like scalable vector graphics (SVG).[7]

Software structures

In 2004, Reas co-developed an exhibition at the Whitney Museum called *Software Structures*. Invoking Sol LeWitt's wall drawings as an inspiration, the project presents a series of abstract rules (or software structures) for the production of an image, including rules from LeWitt. The rules were then implemented using a variety of "materials": Processing, Flash MX, and C++.

> A benefit of working with software structures instead of programming languages is that it places the work outside the current technological framework, which is continually becoming obsolete. Because a software structure is independent from a specific technology, it is possible to continually create manifestations of any software structure with current technology to avoid retrograde associations.[8]

In 2016, the Whitney published a "restored" version of *Software Structures*.[9] As technologies like Java and Flash had then for reasons both technical and commercial fallen out of popular use on the web, the new version featured many of the Processing sketches adapted by Reas to use p5.js, a recent rewrite of Processing in Javascript made by artist Lauren Lee McCarthy.[10]

Despite the project's earlier stated interest in exploring diverse "materialities," it is telling that rather than considering the older processing implementations as a different material and presenting screenshots of them as was done for the Flash and C++ examples, the "restoration" maintains the

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[7] A web standard, SVG is more integrated into the DOM than Java applets (in classic Processing) or the canvas element (see p5.js) are.

[8] Casey Reas, "Software Structures: A text about Software & Art," *Software Structures*, Whitney Museum website, 2004, https://artport.whitney.org/commissions/softwarestruct ures/text.html\#structure. Accessed October 28, 2021.

[9] https://whitney.org/exhibitions/software-structures

[10] Despite the seeming similarity of names, Java and Javascript are two completely independent and quite different programming languages. Adapting software from one to the other is not trivial. In making the adaptation McCarthy claims "diversity and inclusion as core values upon which the software is built." See: https://lauren-mccarthy.com/p5-js and https://p5js.org/. However, most of the limitations I talk about here still apply to sketches made with the current version of p5.js.

illusion of a "permanence" to the processing sketches, placing them closer to those imagined "software structures" than to "retrograde" technologies like Java or an out-dated browser. In addition the "adaptation" elides the work of the development and subsequent implementation of the then recently standardised canvas element,[11] as well as that of the creation of the p5.js library.

ImageMagick

In 2007, I attended a book launch of *Processing: A Programming Handbook for Visual Designers and Artists*. Earlier in the day, I had bought another technical book, *ImageMagick Tricks: Web Image Effects from the Command Line and PHP,* by Sohail Salehi.[12] While waiting for the presentation to begin, I met Casey Reas at the back of the room. He was curious about the book I had with me and looked briefly at it. He had never heard of ImageMagick.

ImageMagick started with a request from my DuPont supervisor, Dr. David Pensak, to display computer-generated images on a monitor only capable of showing 256 unique colors simultaneously. In 1987, monitors that could display 24-bit true color im-

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[11] https://html.spec.whatwg.org/multipage/canvas.html\#the-canvas-element

[12] Sohail Salehi, *ImageMagick Tricks: Web Image Effects from the Command Line and PHP* (Birmingham: Packt Publishing, 2006).

ages were rare and quite expensive. There were a plethora of chemists and biologists at DuPont, but very were few computer scientists to confer with. Instead, I turned to Usenet for help, and posted a request for an algorithm to reduce 24-bit images to 256 colors. Paul Raveling of the USC Information Sciences Institute responded, with not only a solution, but one that was already in source code and available from USC's FTP [file transfer protocol] site. Over the course of the next few years, I had frequent opportunities to get help with other vexing computer science problems I encountered in the course of doing my job at DuPont. Eventually I felt compelled to give thanks for the help I received from the knowledgeable folks on Usenet. I decided to freely release the image processing tools I developed to the world so that others could benefit from my efforts.[13]

ImageMagick, first released in 1990, is a popular free software tool that's often referred to as a Swiss Army knife due to its ability to convert between hundreds of different image formats, and for the many built-in features to filter, manipulate, and generate images. Thanks to the software being "not chemically or biologically based," Cristy was able to release ImageMagick as free software (echoing the way the UNIX operating system became free software due to its marginality to the interests of Bell Labs). The software is full of particularities. For instance, there are a number of built-in images, including a wizard (the mascot of the software) seated at a drawing table contemplating an image of the Mona Lisa.

ImageMagick is a command line tool, designed to be used via textual commands. The typical usage of ImageMagick is to take one image as input, applying one or more transformations to it, and output a new image. In this way the tool can be used repeatedly in so-called "pipelines," or otherwise composed together in structures called (shell) scripts. In these scripts, ImageMagick commands can be mixed with other commands from any software installed on the user's computer that also provides a command line interface.

Salehi's book directly reflects the structure of ImageMagick, with chapters organised around various incorporated "tools": convert, mogrify, composite, montage, identify, display, conjure. The examples are practical: creating logos, or adding captions or a border to an image. One example renders the word "Candy" with colourful stripes. Another series of examples duplicates and inverts the image and text of classical Persian poet

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[13] John Cristy, "History," ImageMagick website. Retrieved from Internet Archive, October 28, 2021, https://web.archive.org/web/20161029234747/http://www.imagemagick.org/script/history.php.

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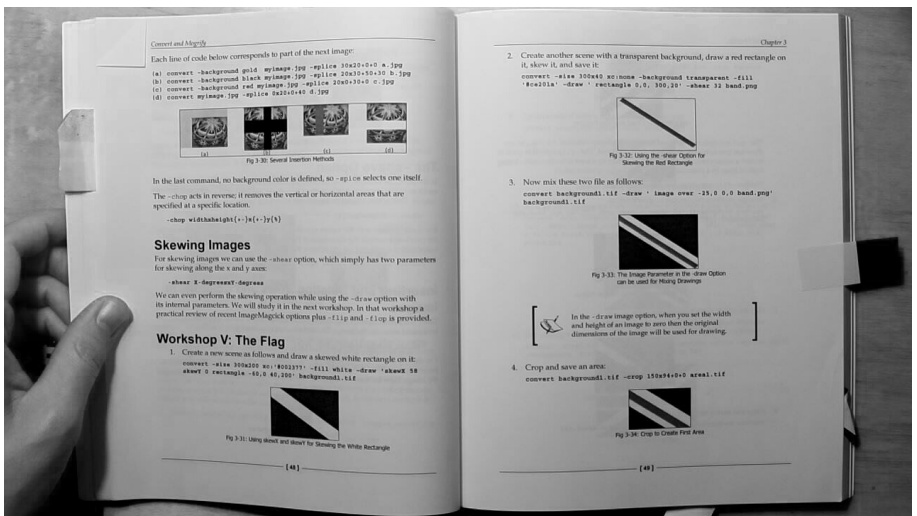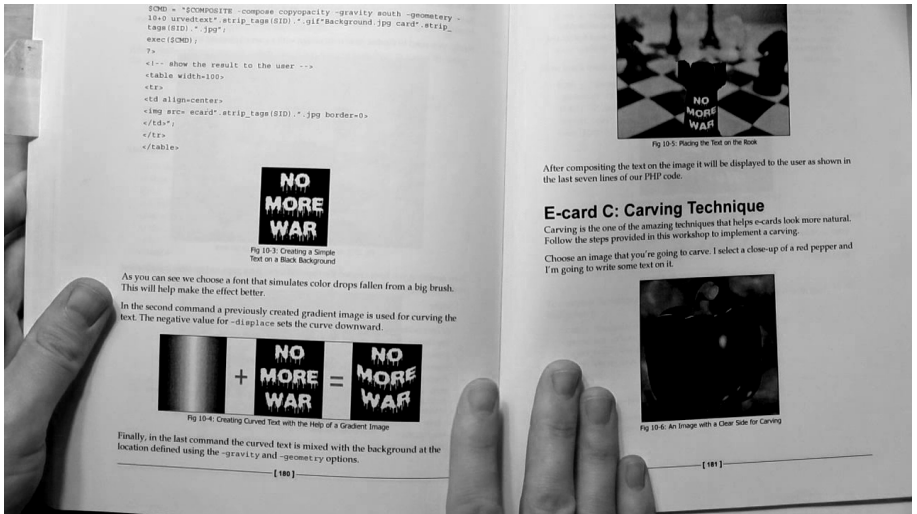
Hafez to create a kind of playing card. Another example uses ImageMagick in conjunction with PHP and HTML to produce an online "e-card maker": a sequence of commands is demonstrated to render the text "No More War" (in a dripping paint font), deform it, and project it onto the side of a chess piece.

In another extended example, a flag is constructed in steps. Rather than approaching the project as drawing geometric forms on a canvas, Salehi uses the diversity of ImageMagick's manipulations, performing a

series of commands whose textual names invoke a sense of physical construction: blocks of colour are skewed, sheared, cropped, flipped, flopped, and finally spliced (with "gravity" set to center). The approach creates a number of intermediate images, thus creating the digital equivalents of "cuttings" or leftover materials in the process.

By modifying the first step to use an image, [14] I produced the following (intermediate) results:
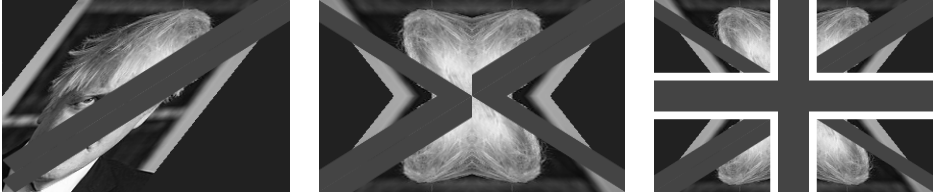
Constructivism and the bricoleur

In the 1920s, Russian avant-gardist El Lissitsky moved to Berlin and produced work that was highly influential to the then-nascent Bauhaus. In 1923, Lissitsky illustrated a publication of poems by friend Vladimir Majakovskij. In it he created graphical forms by mixing typographic elements with geometric forms created by (mis-)using spacing or "blind" elements, typically used to create negative/unprinted space between lines of type, as positives producing geometric forms. This style, sometimes called constructivism, was part of an effort to make a radical break from traditional styles of typographic layout and illustration using the means then available for print. The book is notable for its interactivity via iconic tabbed pages.

Constructivism is also the name given to the pedagogic project associated with Seymour Papert. In the 1970s, Papert co-developed a pedagogy for teaching children mathematics and programming based on the LOGO programming language. Part of the system was a virtual robotic turtle that could be programmed to draw figures. The system, known as Turtle graphics, had commands that directly addressed the "turtle" to draw shapes while moving: forward, turn left, turn right, pen up, pen down.

The process reminds one of tinkering: learning consists of build-

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[14] Image: https://commons.wikimedia.org/wiki/File:Boris_Johnson_official_portrait_(cropped).jpg, Ben Shread / Cabinet Office, UK Open Government Licence v3.0 (OGL v.3)
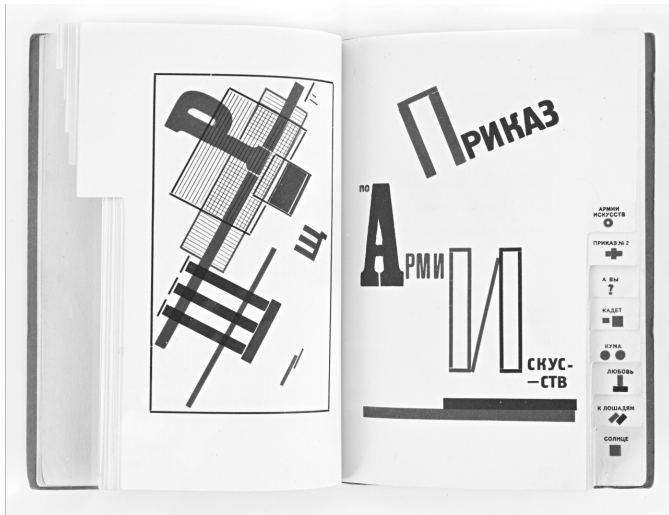
For the Voice, book designed by El Lissitzky. Image from the archive of Guttorm Guttorms-gaard. Used with permission. https://arkiv.guttormsgaardsarkiv.no/node/19/item/39

ing up a set of materials and tools that one can handle and ma-
nipulate. Perhaps most central of all, it is a process of working
with what you've got. …. This is a science of the concrete, where
the relationships between natural objects in all their combinations
and recombinations provide a conceptual vocabulary for building
scientific theories. Here I am suggesting that in the most funda-
mental sense, we, as learners, are all *bricoleurs*.[15]

Papert described the pedagogic project of LOGO in book titled *Mindstorms*.
In a key example, Papert describes how students can be taught about cir-
cles by imagining (or better yet themselves enacting) the turtle repeatedly
performing the sequence "go forward a little, turn a little." He contrasts
this with the formal equation of a circle ($x^2 + y^2 = r^2$) typically taught in an
elementary school geometry class.[16]

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TO CIRCLE REPEAT [FORWARD 1 RIGHT 1]
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In a powerful central visual sequence, *Mindstorms* presents a series of
illustrations showing the screen output of code alongside a running dia-
logue. The conversation starts with a proposition to draw a flower like one

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[15] Seymour Papert, *Mindstorms: Children, Computers, and Powerful Ideas* (Cambridge: MIT
Press, 1980), 173.

[16] Papert, *Mindstorms*, 173.
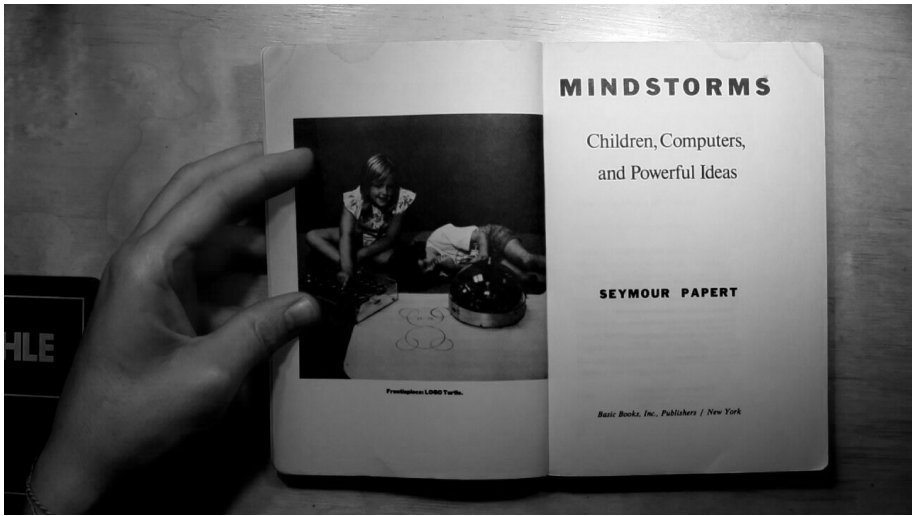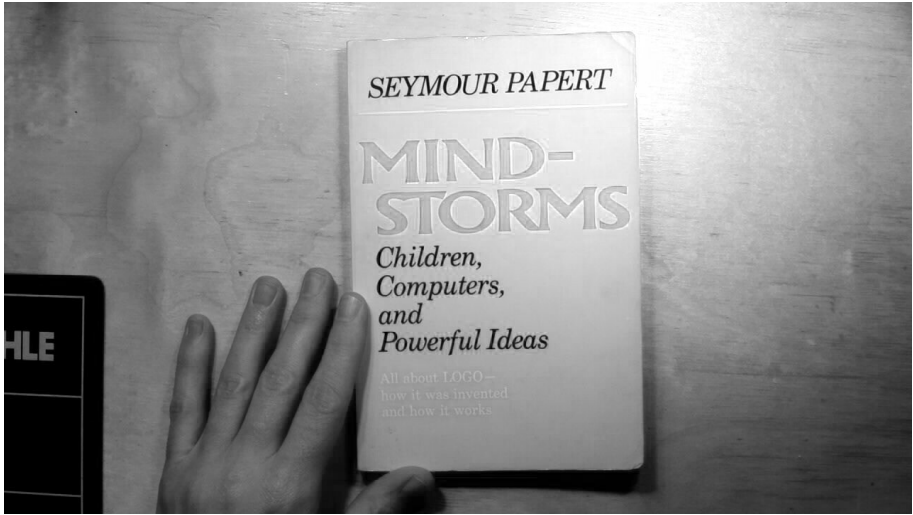
sketched on paper. First they consider what programs they might already have to make use of, in this case they have a procedure to draw a quarter circle. Through a series of steps, mistakes are made, plans are adjusted and retried, and happy accidents lead to discoveries (it's a bird!). In the process the "ends become means" and a new tool is put to use to create a garden, and then, incorporating the "bug," a flock of flying birds.

In Belgium, where I live "brico" is the French language equivalent to "DIY" and is often used in a derogatory sense to indicate that something is made
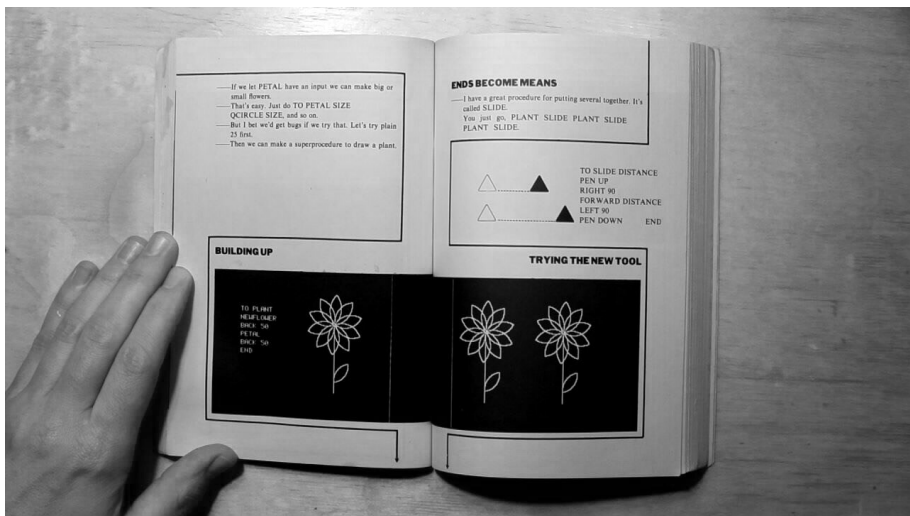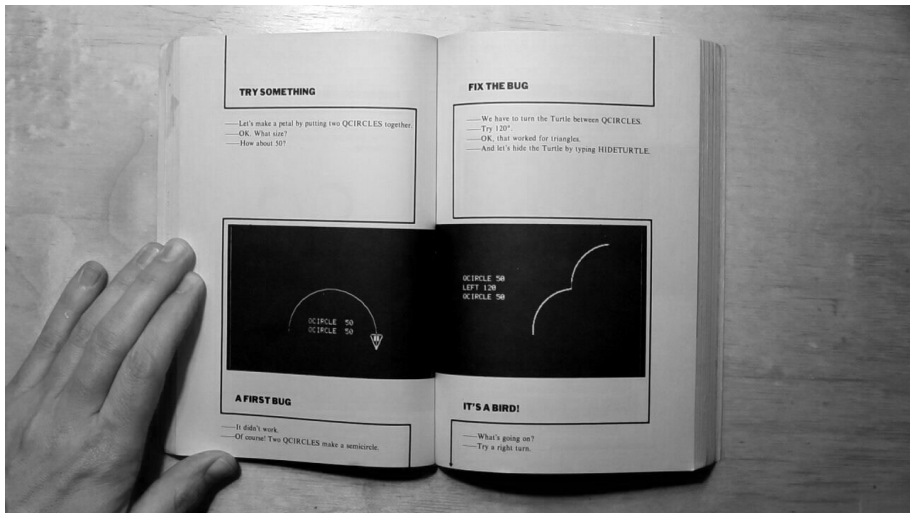
in an amateurish way. Papert is borrowing the term from Claude Lévi-Strauss, who first used the term in an anthropological context hypothe-sising how "universal" knowledge might form from myth and fragmentary cultural knowledge.[17]

For Papert, bricolage exhibits a quality whereby informal methods not only appeal to "common sense" but also engage more profoundly with the

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[17] Claude Lévi-Strauss, "The Science of the Concrete," in *The Savage Mind* (Chicago: University of Chicago Press, 1966), Chapter 1.

materiality of the subject than would a formal approach. In the case of the circle, the "turtle" method is not only a way for the student to imagine the problem physically, it also relates to methods of differential calculus, something the algebraic formulation misses completely. In hacker circles, bricolage is evident in an approach of embracing "glue code" and "duct tape" methods, like the pipeline, that allow different systems to be "hacked" together to do useful (new) things.

Misplaced concretism and a feminist method

Alfred North Whitehead, writing on the sciences, established an influential idea of a "fallacy of misplaced concreteness." The idea is that making abstractions, such as what happens when a particular phenomenon is named, is a simplification that works by suppressing "what appear to be irrelevant details."[18] In *Media Ecologies*, Matthew Fuller extends this thinking to consider technical standards as "a material instantiation" of Whitehead's misplaced concreteness, and considers how technical devices through a process of *objectification* "expect in advance the results that they obtain."[19]

Susan Leigh Star takes Whitehead's "misplaced concretism" and proposes a feminist methodology specific to information technology.[20] Her essay develops the idea of "standards" as one type of "boundary object," which she describes as:

> […] those scientific objects which both inhabit several communities of practice and satisfy the information requirements of each of them. Boundary objects are thus objects which are both plastic enough to adapt to local need and common identity across sites.[21]

She cites Donna Haraway, who wonders in *A Cyborg Manifesto*:

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[18] Alfred North Whitehead, *Science and the Modern World* (New York: Free Press, 1967), retrieved from Internet Archive, October 28, 2021, https://archive.org/details/sciencemod ernwor00alfr/page/52/mode/2up.

[19] Matthew Fuller, *Media Ecologies* (Cambridge: MIT Press, 2005), 127, 104.

[20] Susan Leigh Star, "Misplaced Concretism and Concrete Situations: Feminism, Method, and Information Technology" (1994), in *Boundary Objects and Beyond: Working with Leigh Star,* ed. Geoffrey C. Bowker et al, (Cambridge: MIT Press, 2016), 143–168.

[21] Leigh Star, "Misplaced Concretism and Concrete Situations,"157.

> How do I then act the bricoleur that we've all learned to be in various ways, without being a colonizer…. How do you keep foregrounded the ironic and iffy things you're doing and still do them seriously […][22]

Star draws on a tradition of diverse feminist thinking through the "articulation of multiplicity, contradiction, and partiality, while standing in a politically situated, moral collective" to synthesise and propose what she calls the important attributes of a feminist method:

- experiential and collective basis;
- processual nature;
- honouring contradiction and partialness;
- situated historicity with great attention to detail and specificity;
- the simultaneous application of all of these points.[23]

As a teacher, I enjoy using ImageMagick, and other tools like it, in my teaching as it embodies collectivity from its origins: as a way to give back to a community sharing code over Usenet; through its continued development by multiple authors; and its relation to the larger free software community as an invaluable toolbox for extremely diverse practices. I find the experiential in ImageMagick's highly flexible command line interface itself also an example of honouring contradiction and partialness, with often more than one way to express the same transformation. The processual is implicit in its construction as a tool of transformation, encouraging an exploratory, iterative approach to composing transformations to arrive at a desired outcome, often leading to misusage and errors that can be happy accidents and lead one to reconsider one's goals. Finally, in its extreme support of hundreds of different formats, ImageMagick's use often leads to the discovery and exploration of diverse image formats, each with related practices and histories.

In contrast, as a pedagogic project, I find Processing actively uninterested in its own underlying materiality, aspiring instead to a kind of disembodied and bland universality. Students are encouraged to explore the "world at large" by adding additional layers of technology in the form of sensors, rather than considering all the ways the technologies they use are *already engaged with the world*. The project's "neutral" aesthetics, while dimly echoing a once-radical Bauhaus aesthetic, ignore the larger peda-

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[22] Donna Haraway, "A Cyborg Manifesto," in *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991), quoted in Leigh Star, "Misplaced Concretism and Concrete Situations,"148.

[23] Leigh Star, "Misplaced Concretism and Concrete Situations, 148–149.

gogic program of the historical Bauhaus's engagement and experimentation with the materials of its contemporary, technical production.

> A concatenation of operations of misplaced concreteness thus allow the gaps, overlaps, and voids in the interrelated capacities of such systems to construct a more "accurate" account of its own operations.[24]

Combining Fuller's recipe for critical media engagement and Leigh Star's feminist methods suggests what could be called a vernacular approach to teaching with computational tools that:

- rejects the illusory construction of an isolated artist sitting at a blank canvas creating works from scratch, but rather sees coding practices as situated, social and collective;
- rejects the fantasy of negligible time or unlimited storage, working instead within the constraints of resources at hand;
- supports conversational approaches where work is produced in steps producing intermediate results;
- embraces unexpected outcomes as a way of discovering new methods;
- does not isolate or reject specialised knowledge but rather builds bridges to allow different kinds of knowledge to interoperate, aiding learners in eventually exploring adjacencies;
- is suspicious of minimalism and simplifications and considers how such reductions embody particular values which one might want to oppose or do otherwise;
- embraces the materiality and historicity of computation;
- rejects the false neutrality of the seamless universal design solution, instead tearing open seams, proudly displaying glitches and gaps;
- embraces tips and tricks of specific tools, in specific contexts;
- rejects a notion of digital art as the reproduction of surfaces, and instead situates itself within the contingencies of existing systems, working with technology as boundary objects as a means of bridging diverse communities of practice.

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[24] Fuller, *Media Ecologies,* 104.

Clara Balaguer (Makati City, Pisces Metal Monkey) is a cultural worker and grey literature circulator. From 2010 to 2018, she articulated cultural programming with rural, peri-urban, and diasporic communities from the Philippines through the *OCD*, a residency space and social practice platform. In 2013, she co-founded Hardworking Goodlooking, a cottage industry publishing hauz interested in the material vernacular, collectivizing authorship, and the value of the error. Currently, she builds and publishes curriculums at BAK basis voor aktuele kunst as head of Civic Praxis (Community Portal); at Willem de Kooning Academy as research lecturer in Social Practices; at Piet Zwart Institute as a midwife for Experimental Publishing; and at Sandberg Institute as teacher at the Dirty Art Department. Frequently, she operates under collective or individual aliases that disclose her stewardship in any given project, the latest of which is To Be Determined: a transitional, migratory, neighborly structure of sleeper cells (Trojan horse networks) that activate–deactivate for leaking access to cultural capital.

Manetta Berends works with forms of networked publishing, situated software and collective infrastructures. She is a member of Varia, a member based organisation working on everyday technology in Rotterdam, and an educator at the master Experimental Publishing at the Piet Zwart Institute. https://manettaberends.nl

Julie Boschat-Thorez is a researcher, artist and educator whose work focuses on knowledge organisation systems and the stories which can be extracted from them. She primarily investigates mundane objects such as archives, collections, datasets or museums, to recover traces of their creators ideas and circumstances (for better or worse). She also has an overlapping practice of archiving with an interest for variability, circulation, community and access. She is a member of Varia, a Rotterdam based initiative which aims at developing critical understandings of the technologies that surround us. She teaches at the Willem de Kooning Academy.

Ren Loren Britton is a white trans* interdisciplinary artist and researcher tuning with practices of Critical Pedagogy, Trans*FeministTechno Science and Disability Justice. Playing with the queer potential of undoing norms they practice joyful accountability to matters of collaboration, access, Black Feminisms, instability and trans*politics. They love slowness, reading, following non-linear processes and experimenting towards greater accessibility. Ren has presented work with multiple institutions including Transmediale (Berlin), ALT_CPH Biennale (Copenhagen), Haus der Kulturen der Welt (Berlin), Constant (Brussels), Sonic Acts (Amsterdam), Kunsthalle Osnabrück (Osnabrück), Varia (Rotterdam), Rupert (Vilnius) and Martin Gropius Bau (Berlin). With Isabel Paehr as MELT they operate as an art-design duo, questioning how coloniality, climate change and technological developments are intertwined. To pursue these ques-

tions, MELT boils up insights from chemistry, crip technoscience and trans *feminism to study and set in motion transformative material-discursive processes. MELT is currently a Fellow with the project ACCESS SERVER at the Het Nieuew Instituut in Rotterdam, NL and an associate fellow with MELT's project Data for…? (trans* and disabled lives) with the Digital Curation Institute at the University of Toronto, CA.

Cristina Cochior is a researcher and designer working in the Netherlands. With an interest in automation, situated software and peer to peer knowledge production, her work largely consists of investigations into the intimate bureaucracy of knowledge organisation systems and building collective, non-extractive digital infrastructures. She is a member of Varia and teaches at Willem de Kooning Academy.

Rosemary Grennan is the co-director of MayDay Rooms, an archive and educational space in London which seeks to connect histories and documents of radicalism and resistance to contemporary struggle. She is also completing a PhD in Media Anthropology from University College London.

Silvio Lorusso is a writer, artist and designer based in Rotterdam, the Netherlands. In 2018 he published his first book entitled *Entreprecariat*. He is an assistant professor and vice-director of the Centre for Other Worlds at the Lusófona University in Lisbon. Lorusso holds a Ph.D. in Design Sciences from the Iuav University of Venice.

Cengiz Mengüç is a graphic designer and visual artist interested in diasporic identity expressed through the vernacular visual culture and architecture of the everyday. His current practice moves between commissioned art and design work, street-level advertising work and self-initiated projects, working mostly across the mediums of installation, print and publishing. Currently, he is developing new work based on his ongoing research. Cengiz Mengüç graduated from the ArtEZ Institute of the Arts with a Bachelor degree in graphic design and works and lives in Rotterdam.

Michael Murtaugh is a computer programmer who researches community databases, interactive documentaries and tools for new forms of online reading and writing. He contributes to projects such as the Institute for Computational Vandalism and Active Archives, is a member of Constant and involved in Piet Zwart Media Design where he teaches at the Experimental Publishing Masters course. http://automatist.org/

Varia is a small member-based organisation in Rotterdam (Charlois), focused on everyday technology. It uses the term everyday technology to break through the vision of old and new technology, or smart and not so smart technology by looking more at the appropriateness of what each technology does in a particular situation, while trying to understand whose everyday is meant by the term, to not include one single world view, but to acknowledge that everyone engages with technology in a different way.

https://varia.zone