

[GROUNDINGS]

PUBLIC  
CO-LEARNING  
TOOLS:  
A META-POLITICS  
OF THE SIMPLE  
FOR POSTDIGITAL  
INFRASTRUCTURE

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[OCCASIONAL]  
[GROUNDWORK]

## **0. Digital strategies are a public co-learning opportunity, not just a mechanism for pumping content into the fuel tank of the attention economy.**

We can work our way into a trap whereby new technologies capture us because we're exhausted by the endless process of updating – of staying up to date with the promises of an upgraded experience.<sup>1</sup> One response is to freeze and make no changes for fear of that trap. But stasis is another kind of entrapment, especially so in a fast-changing mediascape. An opposite response is to check if we already have a candidate for improving the situation among the old versions or systems of that technology or its antecedents. After all, updating isn't always an upgrade. Sometimes downgrading technology delivers an upgrade, one we don't necessarily understand or value properly because downgrading appears regressive.

Figuring out how to mix new and old solutions when planning or overhauling a digital infrastructure that organises audience access to cultural resources involves two planning challenges. Both of them tie together practical and ethical decision-making. The first challenge is recognising that no public-facing infrastructure exists in a vacuum. Or, to put it better, infrastructures are enmeshed in bigger eco-systems by the networks they host as well as the resources and labour inputs they're made from. The second challenge is re-valuing the balance between short-term improvements in the front-end experience of a networked infrastructure and the possibility of medium- to long-term improvements in the politics of usership our networks encourage.

This short essay polemically champions the value of the latter. Framed by ideas about downgrading and simplifying, it asks readers to think about the value of transparency, literacies, and open-form participation when considering the development of digital infrastructures for cultural organisations that care about collective processes and the politics they kindle. We encourage those making

decisions about digital strategies to think beyond the promises of short-term ease and endless upgrades pitched by corporate providers leasing out opaque closed-form systems. Instead, we frame some grounded ways of thinking about the extra-technological effects of the network infrastructure choices being made now. And we advocate for systems that are sustainable because they're simple, collectively maintained, and nurture iterative learning through participation in every aspect of the network, rather than just funnelling users to its front-end content as spectators.

In the first section of what follows we describe a hybrid online-offline infrastructure called Pirate Care Syllabus. We also explain the shadow library that anchors its resources, and introduce the software it's built with.<sup>2</sup> This syllabus, library, and software are all open-source tools.<sup>3</sup> Pirate Care is introduced as a prototype for what it and similar open-form networks can enable. In the second section we align the value of such tools with the politics of usership they foster, and we explain how the back-end software Sandpoints can help communities establish lateral publishing processes that create new networks for knowledge-sharing and solidarity. This frames the third and final section, in which we connect a collectivist politics of usership to a meta-politics of the simple, and offer a first sketch of what we're starting to call *public co-learning tools*.

**1. Truly public infrastructure needs to be open-form. Lay users need to be enabled to share responsibility for their content, upkeep and direction.**

A digital infrastructure is the foundational system of hardware and software that enables connectivity and communication between computer devices, applications, and users. A digital network is the specific set or web of connections that runs on such an infrastructure. Both words, 'infrastructure' and 'network', are adopted as abstractions for discussions about the digital. They are

borrowed from discourses of engineering, communications, politics, and sociology, from where they carry with them extra-digital meanings.

We're not interested in making crude claims about the digital replacing everything else, or over-writing extra-digital histories. But we are interested in engaging with two related facts: in today's mediascape, boundaries between the digital and non-digital are hard to find let alone define; and today's public sphere is inextricably interdependent with our mediascape, to such an extent that it feels reasonable to say our mediascape is now one of the primary scenes of public-ness.<sup>4</sup> The inter-effective relationship between supposedly non-digital life and digital technologies is no longer new or questioned. It has become so intensively and extensively networked that the digital is now inextricable from our everyday processes of living and working. All public infrastructure plays a role in the service of the postdigital condition we live in. As such, the decisions we make about the infrastructure we use and the networks they support are unavoidably political.

In ways underlined by the Covid-19 pandemic, those spheres of life we call *culture*, and the institutions we ask to champion them, are awash in the challenges that come with this shift to such a postdigital condition. No cultural institution can avoid the flood. You might stand in an art gallery and marvel at the material singularity of a clay sculpture, but that exhibition, that gallery, that building, and the many people and workflows that keep them all going need a digital infrastructure to function. We can defend the value of IRL front-end experiences of culture, but that doesn't stop the flood of change behind the scenes. How cultural organisations think about their postdigital infrastructure, in networked terms, from the bottom up, is now an unavoidable issue for those discussions about strategy, sustainability and hospitality that any responsible and accountable model of institutionality demands.<sup>5</sup>

The example we want to share was born as a para-academic research project but comes from a place of solidarity with its subject matter. Pirate Care Syllabus (PCS) is a new infrastructural model for knowledge-sharing. It is accessed via the Internet at [syllabus.pirate.care](http://syllabus.pirate.care), but integrates that given network (the WWW) with a privately maintained (read, *defended*) foundation of software and data storage systems. It is a knowledge-sharing infrastructure that piggybacks on the Internet to connect offline communities engaged in real-world struggles against the neo-liberal crisis in care – the exclusionary, exploitative and proprietary co-optation of care provision by institutions enabled by neoliberal policies.<sup>6</sup> PCS knowingly splices given systems – a website – with bespoke parts – a shadow library on Memory of the World, and a software called Sandpoints – to offer an anti-institutional infrastructure. We want to share insights about this project as an intervention in those discussions about institutional strategy, sustainability and hospitality, in no small part because PCS was designed to support exactly such practices of intervention.

The parent project, Pirate Care (PC), was initiated in 2019 by Valeria Graziano, Marcell Mars and Tomislav Medak. Its content was inspired by community-led initiatives for the disobedient organising of care, initiatives which have sprung up in the wake of decades of trans-national austerity economics and centuries of imperialist extractivism and patriarchal power. ‘Care’ in the title names the political and collective capacity of a society to look after its members as a matter of shared interest, regardless of bureaucratic, economic or legal pressures to individuate responsibility. ‘Pirate’ in the title describes the willingness to practice collective care in resistance to those barriers – to work illegally or in the grey areas of the law to organise mutual-aid provisions that can deliver responsive care.<sup>7</sup> Many such practices emerge as an act of resistance to a specific injustice, in a specific place. For example, Sea-Watch is an NGO that offers emergency rescue and support to migrants crossing the Mediterranean; Soprasotto is a self-organised kindergarten in Milan

that ensures access to childcare for those excluded from public services; and the Docs not Cops campaign connects British medical professionals who resist participation in patient ID checks, in defiance of the UK government's 'hostile environment' legislation.<sup>8</sup>

The PC project's methodology and technical innovations had twin inspirations: The phenomenon of #syllabi, developed by social justice movements as a tool for radical pedagogy; and shadow libraries, which provide access to digital books where public libraries are not allowed to. Hashtagging the keyword 'syllabi' was a simple collaboration technique used on social media platforms to make a metadata chain between dispersed bits of content online. It was made popular by the #FergusonSyllabus Twitter campaign begun by Marcia Chatelain in 2014, which encouraged participants to crowdsource reading lists about race, African American history, civil rights, and policing spread around the Internet.<sup>9</sup> The technique creates an open form (i.e. open ended and open entry) network for cross-referencing resources that are findable via the simple tag. Such syllabi are effectively a structured set of pointers, which work so long as those things pointed to stay at their linked-to destination. Unfortunately, user groups can't control that, unless they also control the storage system they're linking to.

This is where the shadow libraries come in. Shadow libraries are piratic and communist in the proper senses of both terms. In effect, they are accessible online databases that connect internet users to stable digital repositories. Their interfaces and cataloguing protocols make it possible to find and download copies of primarily textual content – like digital books or documents – in spite of any Intellectual Property claims that are intended to control and financialise their circulation as digital assets. Starting, maintaining, and contributing to shadow libraries are all acts that involve breaking one or many laws, often across more than one legal jurisdiction because of the WorldWide nature of the Web. They developed from peer-to-peer filesharing systems by adding the centralised

cataloguing standards of a library and dedicated server space to store cloned copies of the library's holdings. Their aim is to stabilise the sharing of rights-restricted publications outside of paywall-protected systems, offering a radical kind of public library service.

When a structured list of pointers (a syllabus) can point to resources that reliably stay in one place (a repository), you have a foundation for stable sharing. When that repository has a proper cataloguing system that enables intra- and inter-holding searchability (a library catalogue) and users are able to contribute holdings to the repository (to become librarians), that foundation for sharing expands into an infrastructure for collective development (effectively, a co-publishing network). When multiple community groups use that infrastructure, they can copy one another's resources (fork their holdings) and thus share in one another's development (learn together). What we get are networks of mutual interest that gather around the practice of learning from one another, creating new forms of scalable solidarity based on open-form co-learning.

This is a technical description of exactly the social process that PCS facilitates. It demonstrates one way of getting from a collective syllabus that is technically vulnerable to a collective publishing network that is meaningfully independent. PCS is a prototype of a self-sufficient technological framework that can store, organise and connect new and existing syllabi and their media in ways that are robust, engineered on ethical principles, and easy to access. The project's aim is to break the chain of social reproduction that makes neoliberal individuation seem sensible, even inevitable. The disobedient ethics inherent to the pirate care practices that the project celebrates are reflexively practised in the technical development of the infrastructure. PCS is itself an act of care, driven by the collaborative work of more than 20 activists, artists and researchers. It is a participant in the counter-culture it supports.

The broader research project, PC, augments that participation both online and offline, completing the postdigital turn. Online,

the website is also a hub for webpages that user groups can author to contextualise their syllabi with additional content, effectively creating lesson plans. Offline, PC shows potential participants how to network using the infrastructure through exhibitions, closed-door workshops, open-door workshops, public talks and constant pro bono network maintenance. With a basic induction, lay non-coders can freely publish the knowledge they have developed experientially in their field, however they choose, drawing on any digital resource they can make or clone.

## **2. Sharing responsibility for an infrastructure requires system-specific literacy. Literacies are easiest to develop and exercise when systems are simple and not simplistic.**

Developing a prototype like PCS is easier to write about than actually do. But it is proof-of-concept that one open-form Free Software tool could make the front-end interface and back-end repositories work together. Afterall, online syllabi are tried and tested. And Memory of the World is actually a library of shadow libraries, which has been successfully hosting collections by multiple cyber-librarians since 2012. The really new part is the tool in the middle, a software developed by Marcell Mars called Sandpoints. PCS was its first application, but it has been continuously developed since 2019 and is now being used by a number of other publishing efforts, including the Machines Listening Curriculum and Dotawo: Journal of Nubian Studies.<sup>10</sup>

Sandpoints is an online publishing platform with a fully supported system for offline working. It can be used on a computer with no need for an external network connection. Members of underground networks – for instance, El Paquete Semanal in Cuba – testify time and again to the importance of offline access and data security.<sup>11</sup> Sandpoints allows for the lateral organisation of collective publishing projects by users who have modest or no access

to the Internet, be they in a war zone, a prison or a circumstance seemingly more mundane. In a functional sense, Sandpoints is a writing tool that fully integrates its own reference library, both by automatically connecting citations to sources and by storing those sources wholesale via a linked repository. Every project running on Sandpoints is rendered into a standalone offline-ready website together with a dedicated library catalogue, all exportable as a single folder that can be saved on a storage device like a USB thumb drive. With a copy of that folder, anyone can use an Internet browser application to search the catalogue independently, accessing all the books or articles referenced without any Internet connection. No additional software is needed.

Digital publication projects running on Sandpoints can also be synchronised, at any time, via a peer-to-peer network or with a central server. This means those publications can be freely shared online, too, if the project administrators choose to upload their collection or if another user mirrors a copied collection. Mirroring – setting up complete digital copies on backup servers, which update themselves in real time – is here celebrated as an act of solidarity, not theft. By saving duplicate copies we increase access to content, and we work together against digital loss. For those same reasons, at any time, that single folder collection can be exported as a well-paginated print-ready document. In a postdigital mediascape, physical and digital storage solutions work best together rather than in competition.

Over the last 20 years, activists have often made a demand on the Free Software community to follow the latest technological trends. Activists would only adopt a tool if it replicated the common usership models of those corporate tools everyone is familiar with. They would complain or disengage when the operation of a software required them to learn new skills. But postdigital users are learning new skills all the time, often without realising it. The progressive modifications (so-called ‘upgrades’) made to the corporate software

that run most of our everyday infrastructure demand that we constantly adapt. Using corporate systems can seem easy – it might even be easy – because corporate standards are exhaustively over-designed so as to make user adaptation seem frictionless. If you remember nothing else from this essay, please think on this: the value of ‘ease’ needs to be challenged. Blithely adapting because you’re constantly nudged is the least empowering model of skills development we can imagine.

There can be no active relationship to systems and tools without some degree of literacy; and such a relationship cannot remain active if those literacies don’t constantly develop. The attunement of a user to a tool and its possibilities through repetitive practice, in a system-based environment like a digital network, is a process best described as iterative learning. Every act of practice adds to the user’s sedimentary knowledge about the tool and how it can be exercised. Iterative learning can be slow, it can be boring. The knowledge it accretes might be intellectual or embodied or both – it might be explicit or tacit or both – but is always accruing so long as the learner remains an active practitioner. It returns much greater value than the superficial fluency of ease. It returns agency and the possibility to shape our personal, collective and social processes.

This is where literacies come in. Because tools are designed for one or some purpose/s (and, often, a particular situation, even if they come to be applied elsewhere) they encourage certain kinds or methods of use. Understanding a technology’s affordances – the implicit expectations about how users will engage with them, as encoded in their design – is what we call a literacy.<sup>12</sup> That literacy can only become critical if the user also learns how and why a system or tool works the way it does, so they can imagine ways of inventively misusing it. By offering frictionless yet limited use of closed-form systems (with fixed architectures and hidden codes), corporate infrastructure solutions afford very little chance for users to develop a critical literacy. By blocking users from learning about

the system's fundamentals, let alone allowing them to be changed, they encourage aliteracy, a basic capacity to use and learn but a disinterest in doing so beyond what is functionally necessary.<sup>13</sup> What's more, corporate systems that are free to use, like YouTube or Gmail, convert aliterate usage and users into a value form by selling their attention, in turn trading on the cultural capital of the content producers who funnel those users-turned-spectators into the system.<sup>14</sup> The separating of producers and consumers into an outdated binary is a good reminder of the everyday stakes of one of the first principles of critical media studies: If a product is free for you to use (like YouTube or Gmail) then your use (your attention) is the product.<sup>15</sup>

This matrix of literacy-related problems delimits the very notion of freedom spoken in the name of the Free Software Movement. The movement campaigns for the freedoms of those who use computing systems. If a computing system requires obedient usership and restricts users to the front-end of a closed-form system, as corporate systems do, then it is acting against that freedom by design. In contrast, a software like Sandpoints is a direct expression of Free Software principles being acted upon in the name of the Free Culture cause, which advocates for the rights of anyone to freely distribute and modify creative work using media networks.<sup>16</sup> Sandpoints enables publishing communities to make content- and format-driven interventions in the discourses they care about. It folds together issues of content and format by synthesising different roles in the process of knowledge production – roles that are usually kept separate by that outdated binary of producer and consumer, like author and distributor, as maintained by vertical publishing processes. One of the clearest achievements of Sandpoints's simple structure is that it better reflects the collective nature of knowledge production, its maintenance, and how it becomes public, in ways that non-experts can trace and contribute to.

By synthesising roles in the publishing pipeline, Sandpoints asks users to share responsibility for the production, distribution, and storage of knowledge. And that responsibility requires work — much of it boring, repetitive work, developed iteratively and requiring some system-specific literacy. The dominant push toward effortless solutions — those that conveniently do the work of production, sharing, and storage for us — has anaesthetised postdigital citizens against sensible concerns for the public-ness of our technological infrastructure. For example, cloud storage solutions seem to have consigned to history the paradigm of file/directory structures, which early web developers used to save and edit their websites locally rather than depend on remote storage systems and the expensive time online needed to stay connected with them. But if you don't save things yourself, you give away responsibility for their preservation and circulation.<sup>17</sup>

**3. A meta-politics of the simple champions engaged modes of usership and a revaluation of user roles in knowledge production and sharing processes. PCS demonstrates how these principles can be put into practice in digital infrastructure development. Now it's your turn.**

The political tilt of the affordances baked into Sandpoints — towards improving collective processes and collective outcomes — might most coherently be talked about as a politics of usership.<sup>18</sup> The stem word, *user*, is often decried as a reductive concept of the full human subject, but it needn't be a definition of all that a person is, does or can be. Instead, 'user' describes the context- or opportunity-responsive ways in which a person engages with a particular system. This way of engaging will have consequences for the fabric of relations within that system, and have a degree of consequence for the fabric of relations outside the system, a degree that depends on the scale of interdependency between that system and the rest of life.

'I' always exceed my usership, but that does not mean my usership isn't critically important to who I am or what I do. In our postdigital condition, how we engage with and within our digital networks has a high degree of significance for the rest of our lives. This is true across a spectrum of situations, from how our choices about what to adopt (and not adopt) shape tech development trends to how the usership permissions we accept in one network circumstance exemplify and organise our modes of relation in other social circumstances.

A politics that encourages an improvement in collective processes of living and decision-making needs active participants. Active participation requires system-literate publics who are able to share responsibility for change. Sharing responsibility requires real participation (rather than simulated) in the upkeep and direction of public infrastructure. Such critical literacies are best developed through open and iterative learning. Collective processes need a commensurate idea of public-ness and a fitting politics of usership to be put into practice across every public infrastructure where active participation is feasible. Creating a culture of participation, wherein audiences embrace the risks and challenges – the work – of sharing responsibility needs institutions that nurture learning opportunities. To become hospitable to even the possibility of such a culture of co-learning, institutions need systems that are open enough for people to learn how they work and to modify them if they want. In an era like ours of super-intelligent systems, such open-ness has to be fought for by stripping back complexities, by simplifying systems, even downgrading capabilities, by refusing to just go easy.

We could call the prescription in the previous paragraph a meta-politics of the simple. It is a political discussion about the politics of simplifying systems, of opening them up as shared infrastructure, as scenes for a more collective culture of public-ness and caring. There is an important difference between 'simplifying' and 'simplistic' in this prescription. 'Simplifying' distils a condition

and the choices for action it frames. ‘Simplistic’ strays from there into delusion, reducing real conditions to something impossibly clear. A politics of the simple needs meta-critical self-awareness to avoid that slip into delusion. Institutional hospitality and active usership demand constant work from all parties involved towards a long-term co-learning goal. PCS is a limit-case example of these principles put into practice, as an intervention in institutional norms. But it demonstrates, at minimum, that every possibility between current institutional norms and that limit case are already possible.

Just as there is no singular model of ‘the cultural organisation’, there is no one-size-fits-all model for public co-learning tools. There should be a spectrum. And the more diverse that spectrum gets the better, because the premise that holds its variations together is simple: public co-learning tools are open-form digital publishing systems that allow users and developers to learn about each other and a shared subject matter, to interchange roles, and share collective responsibility for a system’s upkeep and direction. Anyone can work from that premise however suits their purpose.

Developing a postdigital knowledge-sharing infrastructure is a lifelong commitment, one that has to pool and borrow the expertise of many people, organisations and tools. It is a development process that requires an unpredictable amount of expertise and risk-taking. We’re not suggesting that every cultural organisation should build their own postdigital infrastructure solution from scratch. Mix off-the-shelf parts with bespoke adaptations – it’s not about re-inventing the wheel. But we are suggesting that cultural organisations should understand the micro, meso and macro consequences of their postdigital infrastructure strategies. Organisations need to dedicate resources to evaluating what their chosen systems actually do, and to weighing up whether or not the culture of usership those systems encourage internally and externally aligns with their values.

Remember, the limitations of closed-form systems compound over time like interest on a bad debt. An open-form co-learning approach might not be easy, but we think its payoffs are much more valuable.

## NOTES

- 1 Wendy H. K. Chun, *Updating to Remain the Same: Habitual New Media* (Cambridge, MA, 2016).
- 2 See <https://pirate.care/>.
- 3 Open-source describes things that can be shared and modified because their structural design is open for anyone to check, copy, or change.
- 4 This is not to conflate the public sphere and its Habermasian dictates with public-ness and its mutable pluralities. Paolo Virno's diagnosis of a public-ness without a public sphere in *A Grammar of the Multitude* (Los Angeles, 2004) will ring true with anyone who uses networks like the Internet for anything other than consumption. The public-ness of the Internet has few if any of the civic or institutional frameworks of control and protection that a public sphere requires. It is largely determined by private and corporate interests. Virno:  
My thesis, in extremely concise form, is this: if the publicness of the intellect does not yield to the realm of a public sphere, of a political space in which the many can tend to common affairs, then it produces terrifying effects. A *publicness without a public sphere*: here is the negative side – the evil, if you wish – of the experience of the multitude. (p. 40).
- 5 In an earlier draft, we used the word 'leadership' instead of 'hospitality' in this sentence, but the dominant cult-like business-school understanding of leadership makes us all feel uneasy, even queasy. Rodrigo Nunes articulates our unease quite precisely:  
It is perfectly possible to acknowledge that there is in politics an ineliminable function that can be identified with leadership: the initiation of collective behaviour. In and of itself, this tells us nothing about whether that must necessarily translate into positions of leadership, what forms those might take in different situations, or what mechanisms must be put into place in order to control them. Position can then appear as the consolidation and stabilisation of function [...].  
(Rodrigo Nunes, *Neither Vertical nor Horizontal: A Theory of Political Organisation*. London, 2021)
- 6 Nancy Fraser, 'Contradictions of Capital and Care', *New Left Review*, vol. 100, no. 99, August 2016. Melinda Cooper, *Family Values: Between Neoliberalism and the New Social Conservatism* (New York, 2019).
- 7 Valeria Graziano, Marcell Mars, Tomislav Medak, 'On the Concept of Pirate Care', <https://syllabus.pirate.care/>, 2019.
- 8 Sea-Watch: <https://sea-watch.org/>; Soprasotto: <http://soprasottomilano.it/>; Docs Not Cops: [www.docsnotcops.co.uk/](http://www.docsnotcops.co.uk/).

- 9 For an introduction to the phenomenon of online syllabi, see: Valeria Graziano, Marcell Mars and Tomislav Medak, 'Learning from the #Syllabus', *State Machines: Reflections and Actions at the Edge of Digital Citizenship, Finance, and Art* (Amsterdam, 2019), pp.115–128. For a list of #Syllabi (non-exhaustive) see: Online Syllabi & Social Justice Movements, <https://syllabus.pirate.care>
- 10 Machine Listening, A Curriculum is a project by Liquid Architecture developed in partnership with Melbourne Law School, ANU School of Art & Design, Unsound, and NTU Centre for Contemporary Art Singapore. It publishes existing and newly commissioned writing, interviews, music and artworks (<https://machinelisting.exposed/curriculum/>). Dotawo: A Journal of Nubian Studies brings together archaeological, historical, and philological research into Meroitic, Old Nubian, Coptic, Greek and Arabic sources with current investigations in modern anthropology and ethnography, Nilo-Saharan linguistics, and critical and theoretical approaches in postcolonial and African studies ([https://pages.sandpoints.org/dotawo/\\_preview/journal/](https://pages.sandpoints.org/dotawo/_preview/journal/)).
- 11 El Paquete is a one terabyte collection of digital material distributed since around 2008 on the underground market in Cuba as a substitute for broadband Internet (Source: Wikipedia, 'El Paquete Semanal', <https://en.wikipedia.org>). Thanks to Agustina Andreoletti for first introducing us to this practice during her presentation at the Pirate Care Conference, Coventry University, 2019.
- 12 For an introduction to the concept of affordance, see James J. Gibson, 'The Theory of Affordances', in *The Ecological Approach to Visual Perception* (Boston, 1979). For a more detailed discussion about media affordances, see William W. Gaver, 'Technology affordances' in *Proceedings of the SIGCHI conference on Human factors in computing systems* (1991) and Jeffrey W. Treem and Paul M. Leonardi, 'Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association', *Annals of the International Communication Association* 36.1 (2013), pp.143–189.
- 13 The concept of aliteracy refers to people who can read but choose not to. For a discussion of this growing phenomenon, see: Kylene G. Beers, 'No Time, No Interest, No Way! The 3 Voices of Aliteracy', *School Library Journal* 42.2 (1996), pp.30–33.
- 14 For an expansive critique of the attention economy in networked society, see Shoshana Zuboff, et al. 'Surveillance Capitalism: An Interview with Shoshana Zuboff', *Surveillance & Society* 17.1/2 (2019), pp. 257–266.
- 15 Richard Serra and Carlotta Schoolman, 'Television Delivers People' (Castelli-Sonnabend Films and Tapes, 1973).

- 16 Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (New York, 2002).
- 17 For a concise guide to working against digital loss, see: <https://custodians.online/>.
- 18 Stephen Wright has written some of the most relevant work in relation to art and art organisations and what he calls the ‘usological turn’, or the rise of ‘the user’ in response to the breakdown of ‘the long-standing opposition between consumption and production’ that underwrote modern ontologies of art (p. 1). He defines usership against expert culture, spectatorship and ownership (p. 1), as ‘an opportunity-dependent relationality...a self-regulating mode of engagement and operation’ (p. 68) that uses or misuses culture as each user decides. See, ‘Towards a Lexicon of Usership’ (Eindhoven, 2013).

Valeria Graziano is a media theorist, activist, and (together with Marcell Mars) is convenor of the international project *Pirate Care*, which fosters a transnational network of activists, researchers and practitioners against the criminalization of solidarity and for a common care infrastructure. Marcell Mars is co-founder of the shadow library network *Memory of the World* and head of the development team behind the Sandpoints publishing platform. Nick Thurston is a writer and researcher who has written extensively on DIY publishing and open access arts resources, in magazines and journals including *Frieze* and *Art Monthly*.

Occasional Groundwork is an alliance of three European biennials EVA (Ireland's Biennial of Contemporary Art), GIBCA (Göteborg International Biennial for Contemporary Art, Sweden), and LIAF (Lofoten International Art Festival, Norway) that are each concerned with re-proposing the model of the international art biennial. Seeking a rooted infrastructure for the production and dissemination of contemporary art, Occasional Groundwork serves as a peer group for thinking-through the existing and speculative frameworks of organisational practice.

*Groundings* is the first public initiative of Occasional Groundwork – a series of co-commissioned texts by writers, artists, curators, and academics, exploring themes of internationalism, sustainability, audience, and infrastructure within the context of the contemporary art biennial and the shift in conditions imposed by the ongoing pandemic.

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