Uploading our libraries: the subjects of art and knowledge commons
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In this article, I explore digital libraries and repositories of texts, films and other forms of art and knowledge as commons in relation to the subject positions they formulate and from which they are made. Libraries are technically not always commons, although they are increasingly discussed as ecological infrastructures for a good life. Shadow libraries and repositories, as discussed below, are non-state, no profit archives, precarious libraries, public knowledge ecosystems that form new types of culture and knowledge commons. These radically open knowledge infrastructures are unstable, ephemeral, inventive commons, whose subjects see and make the world differently.

PART 1

Introduction to subject-positions

The idea of the commons directly relates to the questions of subjectivity and subject (or subject-position). The subject here is taken to mean an abstracted position, almost a logical placeholder, which is distinct from subjectivity or self as a complex and indeterminate lived experience. The subject may abstract from self and maintain a connection to it, or may be a figuration, acting as quasi-subject or "model subject" and being unrelated to any particular individual. We know abstracted subject positions from role models, conceptual descriptions, and novelistic or cinematic

¹ Shannon Mattern, "Library as Infrastructure," *Places* (June 2014), https://placesjournal.org/article/library-as-infrastructure

² Cornelia Sollfrank, "The Surplus of Copying. How Shadow Libraries and Pirate Archives Contribute to the Creation of Cultural Memory and the Commons," *originalcopy* (November 2018), http://www.ocopy.net/essays/cornelia-sollfrank/

³ Alexandra Elbakyan, Transcript and Translation of Sci-Hub Presentation (2016), https://openaccess.unt.edu/symposium/2016/info/transcript-and-translation-sci-hub-presentation

figurations. They also take part in the processes of subjectivation, albeit their zone of actualization is art, literature, or culture more broadly. Subject-positions also develop in digital media systems, formulated in relation to technological infrastructures and platforms.

Before setting out to describe the subjects of the projects generating and maintaining knowledge commons, the subjects of shadow libraries and repositories and the subject positions offered to and invented by their collective users, it is important to mark two important claims, from which the notion of the subject or subject position that I want to pursue here stems. The first is that subjectivity is a process rather than an essence. Subjectivity as a process relies on interactions with other humans and non-humans, with forces, laws, institutions, power—overall, on development and exchange in complex systems. Subjectivation, another term to emphasize the processual nature of becoming, is used to describe the flow of life that individuates into a particularity, and here the individual is never quite fully achieved in the sense of being final and whole: an individual is always in the process of being made, relying on the pre-individual, the collective, and the non-individual.

The second claim concerns aesthetics. An argument made by Mikhail Bakhtin is that aesthetics is core to the processes of subjectivation and to the production of the subject. This aesthetics is not a characteristic of something that belongs to the world of art, neither it is something that is primarily visual or perceived by the senses. Aesthetics is a broader category. For Bakhtin, it is the aesthetic relation—that is, primarily a productive, creative force—that *makes sense* of a multitude of features, judgments, responses of a person. This becomes clearer if we take as our starting position the idea presented above that one unique subjectivity is a fiction. A human consists of multiple and multi-directed drives, actions, desires, thoughts—with this multitude dynamically evolving and permanently making sense in relation to the world in which one lives. A whole, one, centered and stable subjectivity is constant

⁴ Mikhail Bakhtin, *Estetika slovesnogo tvorchestva* (Moskva: Iskusstvo, 1979). The essays included are published in English in Mikhail Bakhtin. *The Dialogic Imagination: Four Essays* (Austin: University of

published in English in Mikhail Bakhtin, *The Dialogic Imagination: Four Essays* (Austin: University of Texas Press, 1982) and Mikhail Bakhtin, *Toward a Philosophy of the Act* (Austin: University of Texas Press, 1993).

work, a fable. This fable, for Bakhtin, is told by aesthetics. It is the aesthetic relation that makes sense of the multiplicity of things taking part and undergoing processes of subjectivation. The aesthetic relation is the one that makes sense, *creates the subject concretely*, in embodied reality, and *abstractly*, in abstracted meaning. Such aesthetic relation is of the person and of the world towards the person; here aesthetic relation is what creates both the person and the world.

When Bakhtin talks about the aesthetic protagonist (in Dostoevskys novels), he suggests that a protagonist offers *a point of view*. The protagonist here is not a manifestation of socio-political forces (a classical Marxist view on literature), or a constellation of individual characteristics to produce a realist character (Tolstoy's achievement), but a specific point of view on oneself and the world, a conceptual and axiological position: a position from which meaning-making and judgment, evaluation of the world and oneself is made. Such a conceptual subject-position is fictional, i.e. it is literature, and yet a point of view from which a certain new version of the world can be created, and in that, it is aesthetic.

In a certain way, such a proposition is conceptually close to what Deleuze and Guattari describe as a "conceptual persona," of which they write: "The role of conceptual personae is to show thoughts territories.⁵ A conceptual persona maps and lays out a plane, a cut of the world, with its own coordinates and a horizon of possibility, and within which a mode of living or other form of difference can be invented and produced. Although Deleuze and Guattari say that conceptual personae are not "literary or novelistic heroes," they write: "the plane of composition of art and the plane of immanence of philosophy can slip into each other to the degree that parts of one may be occupied by the entities of the other." "Great aesthetic figures of thought of fer a point of view, a position, from which a territory can be mapped and creatively produced.

The subject positions described below are abstracted from the work and

⁷ Ibid., p. 66.

⁵ Gilles Deleuze and Félix Guattari, *What is Philosophy?* (London: Verso, 1994), p. 69.

⁶ Ibid., p. 65.

⁸ Ibid., p. 65.

structures of shadow libraries, repositories, and platforms. They are formed as points of view, conceptual positions that create a version of the world with its own system of values, maps of orientation and horizon of possibility. A conceptual congregation of actions, values, ideas, propositions creates a subject position that renders the project possible. Therefore, on the one hand, techno-cultural gestures, actions, structures create subject positions, and on the other, the projects themselves as cuts of the world are created from a point of view, from a subject position. This is neither technodeterminism, when technology defines subjects, nor an argument for an independence of the human, but for a mutual constitution of subjects and technology through techno-cultural formulations.

Similarly to how Sianne Ngai discussed the problem of the "tone of the text," as a general feeling that neither the reader nor any of the protagonists necessarily feel, 9 there are subject positions in and of a technical system that arise in complex ways. Such positions are figured by a range of possibilities and forms of engagement in a system, but are not necessarily prescribed in such a way that there is a subject position corresponding to a sequence of clicks through the interface. It is not possible to pin a subject position on a technical function alone; neither is the "user" set up through the design process. Sometimes such a subject position is not worth speaking about—it can be formulaic, offer a speck of a subject—but at other times it is a point of view, of meaning-making, of value, that makes a claim for another version of the world. Techno-cultural projects, including the ones I attend to below, form subject positions, both in terms of a position from which the project is created and maintained, and as a collective user/participant, developed through the project's technical realization, content, forms of interaction, and evolution over time.

I have previously developed the notion of organizational aesthetics to explain how the configuration and development of techno-cultural platforms and their practices contribute to the creation of an art movement and of artist and curator as subjects. ¹⁰ Subject-positions can be formed by software processes in relation to

⁹ Sianne Ngai, *Ugly Feelings* (Cambridge MA: Harvard University Press, 2005), p. 69.

¹⁰ Olga Goriunova, Art Platforms and Cultural Production on the Internet (London: Routledge, 2012).

complex forms of organization of the repository. They can be constructed, among other factors, by specific computational configurations of networks, platforms, use functions, back-ends, software tools, interfaces, html versions and connection speeds, as well as complex sets of ideas, decisions, chances, and cultural forms. Such subject-positions are aesthetic because they are creative processes that act productively, make sense of and create different cuts of the world and new forms of inhabiting it. In this article, it is the access to the changing structures of art and knowledge, and their changing position in larger infrastructures of society that is negotiated by the subjects under consideration.

There is a tradition for thinking technology in relation to subjectivation (as developed in the work of Gilbert Simondon), but in this text I am more concerned with abstracted subject positions, and how they work in the project of society, rather than going into detail about what they do to subjectivities. My proposition of the subject as a subject-position grows out of Bakhtin's offering. However, I suggest being cautious of the Cartesian tradition, followed by Bakhtin, of regarding a subject as always produced in relation to one human, or human mind, which turns back on oneself and realizes that it can think both the world and itself, thus splitting reality into an object of thought and the thinking subject, conscious of itself. This subject has been announced dead by the poststructuralists. It was decimated by feminist and postcolonial work that showed that such a subject is produced by subjugating the world and otherness, that such a subject is always precoded as white, male, and able. What I would like to do in this text is to argue away from such a subject, and instead think a subject position that acts aesthetically in the world, and in relation to subjectivities. If a subject is a process of abstraction, of turning back on oneself, or a falling out of immanence, as Deleuze called it, 11 there are many ways of abstracting subjects and many different kinds of abstracted subjects operating in the world.

The subject by virtue of its abstracted nature is inscribed in various structures of power (Althusser said that they are generated in response to them¹²), acting back on

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¹¹ Gilles Deleuze, *Pure Immanence: Essays on a Life* (New York: Zone Books, 2001), pp. 26–28.

¹² Louis Althusser, "Ideology and Ideological State Apparatuses" (1970), https://www.marxists.org/reference/archive/althusser/1970/ideology.htm

the self. Very different traditions can be brought together when thinking such subjects. One tradition that concerns itself with people and their subjects is grounded in the social sciences. Here, the formation of the subject is often about rendering people as units, by counting them and recording them as data, fitting them into categories, and calculating average persons. Well-known arguments, such as that of Ian Hacking, in the article "Making Up People," focus on the claim that statisticians make people up by creating categories and models, which are then filled in by people making themselves in the image of a category or rather society molding people in terms of the category. This is a nominalist position: one names something and it comes to exist, not only as a label, but as embodied reality. The article is staged as an argument between a nominalist and a realist, seemingly with no side winning. Radical nominalism, after all, and perhaps especially after Duchamp, is indistinguishable from poetry or art.

Here is where the operations of counting, identifying, classifying cross to the art and humanities side, another tradition of thinking subjects: people also make themselves and others in the image of creatures of literature, art and film. A term suited to talking about this is that of a poetic figure, figuration, a persona or a subject-position. Here, a subject is an aesthetic position created by an art project, a Bakhtinian point of view offered by a novel's protagonist or a cinematic figuration.

Rancière called these two distinct domains the logic of fact and the logic of fiction. Fiction is not false: it has rigorous logic. I suggest that in computational, data-intensive cultures the logic of fact and the logic of fiction cross wires, creating abstract subject positions that are aesthetic, meaning productive and creative, and which partake in the processes of subjectivation as well as the creation and maintenance of society. There are many such subject positions. Some are very significant and all-encompassing, while others are "flecks of identity," elements of figurations created by techno-cultural gestures.

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¹³ Ian Hacking, "Making Up People" (1986),

https://serendipstudio.org/oneworld/system/files/Hacking making-up-people.pdf

¹⁴ Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture* (Cambridge MA: MIT Press, 2005).

In Marxist readings of history, the problem I am trying to capture is normally addressed in terms of an opposition between the form of an individual forged by capitalist systems of relations, and a re-thinking of such an isolated self-managing subject in relation to the notions of collective subjectivation, collective knowledge and action, and alternative property regimes, amongst other things. Such an analysis emphasizes that the production of an individual as a self-consistent unit functioning within an order of time and space of work is primarily the result of a transformation of people into disciplined labor power, which is to be further expropriated and turned into capital. The logic of capital governs the copyright system directly (in terms of laws protecting profits, whether immediate or imaginary) and by instilling habits and beliefs, a process of training that is so long that Felix Stalder calls for "unlearning copyright."

But how are such things learned in the first place? The early modern transformation of people into working subjects is explored in the work of Silvia Federici. Federici argues that the person that is homogenized, fixed in time and space, identical to itself, is an invention of capitalism seeking to produce a capable and willing, regularized workforce out of people orientating themselves around chance, magic, and different notions of time and need. This concerns, Federici says in Caliban and the Witch, not only the productive labor force, but also the reproductive labor force, primarily women, who were individualized, cut off from the commons, and subjugated into dependence on a man in a nuclear family unit in the early period of capitalist development. 15 Federici's argument emphasizes that historical commons, such as forests in England, were sites of subsistence, collectivity and cooperation. The use of the commons, her argument goes, produced and sustained knowledges and practices involved in the production of difference. This was the difference of how to be female—in relation to plants and the knowledge of herbs, which entailed relation to one's own body, including controlling reproductive capacities, and in relation to other women, their knowledge and shared practices. The common forest was also the source of food and warmth that entailed support for different modes of living and

¹⁵ Silvia Federici, Caliban and the Witch (New York: Autonomedia, 2004).

survival. Alongside the dispossession of people by way of enclosures and terminating the communal use of the forest, women were condemned as witches and executed in large quantities, with their forest-reliant knowledges and practices lost as a result.

Here, I would say, a witch is a subject-position. Today, people may decide to explore the option of being a witch, to figure themselves in the image of a witch, to develop a practice to communicate with what Stengers calls the "unknowns" of modernity. Such figuration would be conceptual, as well as collective, expressed in specific collective practices. At the same time, as Federici demonstrates, it is a category historically used in Europe to exterminate women to the order of hundreds of thousands during the sixteenth and seventeenth centuries. A figuration here crosses into a legal category, which, once applied to the person, provides grounds for her torture and execution. The tension between the aesthetic function of a subject-position, its political force and its utilization in juridical terms are core to the notion of the subject. The aesthetic figuration of a subject position can be militarized, turned into a weapon or put into shackles.

Overall, I argue that the shadow library projects considered below create subject positions that re-define horizons of possibility through intervening into and widening the processes of subjectivation. To do this is always a political as well as an aesthetic matter. The commons is a site of nourishment of various kinds, of knowledges and practices that sustain alternative political imaginaries of education, social relations, art, culture, economy, and the making of forms of solidarity. Commons are practices, forms of knowledge, action and cooperation, dynamic technical infrastructures that have corresponding subject-positions: they nurture and sustain specific subjects. Such subjects are techno-aesthetic figurations; as such, they may be formed as targets of state control or be targeted so that certain behaviors they represent can be eliminated. Similarly to how the witch hunt, when expressed in cultural, societal suspicion of women, attacked certain forms of feminine power, the copyright regime attacks certain powers: of a habit of knowing, of sharing, of

¹⁶ See work by Isabelle Stengers, including "Experimenting with refrains: Subjectivity and the challenge of escaping modern dualism," *Subjectivity* 22, no. 1 (2008): pp. 38-59, and Philippe Pignarre, Isabelle Stengers, *Capitalist Sorcery: Breaking the Spell*, trans. Andrew Goffey (London: Palgrave, 2011).

experimental forms of art, of different orders of cultural importance, of building alternative infrastructures. Subject positions can and have repeatedly crossed into categories targeted by law: for instance, when launching a piece of software running a DDoS attack started to constitute criminal behavior rather than a form of political demonstration. Here, for example, acting in the image of a hacker, a member of *Anonymous* supporting Wikileaks against the blockade by Visa or PayPal (a thread of a subject-position), in some cases quickly led to people ending up in prison. The damaging lawsuits against individuals who started shadow libraries is another example: an individual is singled out and framed as a criminal in specific nationally delimited legal systems that attempt to narrate the world and people in their own logic and language. The notion of the bourgeois subject is profoundly linked to the notion of individual property. Evasive murky subjects of commons, with their multiple and undefined roles, can offshore responsibility constituted in the terms of current copyright law and its enforcement. Multiple subjects of commons can allow not only for disidentification, but also for play and evasion of this regime.

In what follows, I review a number of the projects sustaining art and knowledge commons in the digital age in terms of the subject positions that arise from the way they have developed and work, as the positions of those who create, maintain, safeguard and use the commons and as the ways of understanding them. There are a few such figures: historically, a pirate, an outlaw, and, more recently, meta and underground librarian, public custodian, general librarian, critical public pedagogue, multiform bibliographer, fancy general archivist, and cultural analyst. All of these are ways of ordering reality and thus creating knowledge, art, and collaborative action. These subjects are not some whim, they are acting in and producing lived reality and the processes of subjectivation of those reliant, even if only occasionally, on them.

PART 2

Pirate, thief and otherwise an outlaw

One of important figures for the formulation of the commons in response to the rise of networks in the 1980s and 1990s, was that of the pirate. Bruce Sterling's 1988 *Pirates*

in the Net described enclaves dedicated to "data piracy," but it was Hakim Bey's work on pirates, appearing in different formats, including *Pirate Utopias*, and culminating in his proposition of the concept of the Temporary Autonomous Zone (TAZ) that became influential for net critics, filesharers, media artists, and activists.

The historical pirates, in his account, held land in common in pirate enclaves; their wealth was held in common treasury. Shared resources meant temporary liberation of land as well as imagination, and implied specific forms of self-governance and sovereignty. The TAZ, inspired by the figuration of an anarchist pirate, is a temporary free enclave that takes the form of a network, tactics, or organization. A TAZ is not necessarily a place in time per se, but is embedded in the Web, which is an "open structure of info exchange." The Web is the necessary support system for a TAZ, which acts within the ethics of the counter-Net, leeching off the official, hierarchical, state-or-corporate-controlled Net. The "actual data piracy," "illegal and rebellious use" of the Net relies on having the structures, tactics, and ways of organizing via the Web. But it's not only that: the Web can also "inform the TAZ, from its inception, with vast amounts of compacted time and space which have been 'subtilized' as data."

In Bey's vocabulary, Net and counter-Net seem to act as infrastructures, whereas the Web is a form of their use, a mode of organization, a multiplicity of infrastructural features to support the TAZ, and provide it with time and space in the form of data. What would have been a network of locales, markets, knowledges of routes as well as songs and epics as shared infrastructure of pirate subsistence is "subtilized" into data and the Web. 19 The new formulation of a plastic technosystem, together with its practices of use, strategies, and poetics coalesce around the figure of the pirate. This pirate is a subject position that allows for the invention of

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19 Ibid.

¹⁷ Peter Lamborn Wilson, *Pirate Utopias: Moorish Corsairs & European Renegadoes* (New York: Autonomedia, 1995), p. 195.

¹⁸ Hakim Bey, T.A.Z.: The Temporary Autonomous Zone, Ontological Anarchy, Poetic Terrorism, (1985/1991), https://theanarchistlibrary.org/library/hakim-bey-t-a-z-the-temporary-autonomous-zone-ontological-anarchy-poetic-terrorism

new socio-political forms of life. In Bey's account, although he does not use the term, the Web as infrastructural commons enhances and supports forms of life, spaces and time rather than substitutes for them. The ideas come from elsewhere: the pirate imagines and actualizes new forms of society, relying on the common forms of organization, tactics, and resources of the Web.

The founder of *Sci-Hub*, Alexandra Elbakyan, uses related vocabulary today, setting up a fascinating context for her work in one of her interviews. We are the thieving magpies, was Bey's premise to his version of the commons. Elbakyan says that science was historically regarded as a theft of secrets from nature. While the figures of the pirate and heroic outlaws, such as Robin Hood, are also an important source of inspiration for her, she also activates a large variety of resources, from Ancient Greek mythology and Thomas Moore to the Soviet scientific community, to advocate for the abolition of private ownership of the process and the results of scientific enquiry. The figures of the pirate, the outlaw, and of cunning Hermes, a God of crossing boundaries, set up an ideational horizon that make the work of *Sci-Hub* possible.

Meta librarian

The context that Tomislav Medak sets up for his work with Marcell Mars includes the policy of austerity following the 2008 financial crisis, the crisis of mass education, and the underemployment of skilled workforces, read against the background affordances of technical infrastructures. Following the rise of American monopolies, such as Google, Facebook or Twitter, the channeling of information networks into private platforms, and the aggressive campaigns of publishing giants such as Elsevier, new figures and subject positions come to prominence.

Marcell Mars and Tomislav Medak initiated *Memory of the World* as a proof of concept for the project *Public Library* in 2012. *Memory of the World* was built in response to the specific situation when Croatian libraries were disposing of books. Staged as a response to the financial cuts, this disposal was also used as an

²⁰ Elbakyan. Transcript and Translation.

opportunity to get rid of undesired political histories and knowledge. The librarians were throwing out Marxist books, books by Serbians or those written in the Cyrillic alphabet.²¹ In response, Medak and Mars asked people to bring books and journals that were being chucked out; they were then scanned and made available to the readers (*Written-Off*, 2015). For example, the entire catalogue of the Yugoslav Communist research group journal *Praxis*, which was going to be destroyed, was put online: this opened up a worldwide discussion of the legacy of this group (*Digital Archive of Praxis and the Korčula Summer School*, 2016).

The subject position of a *meta librarian* arises here in response to the crisis in the project of continuation of knowledge. A meta librarian is the next level up from the librarian; a librarian of librarians, it comes onto the stage when normal librarians fail. Mars and Medak emphasize the position of the institution of the library as a conflictual site. ²² Torn between the promise of universal knowledge and universal enlightenment, i.e. access to that knowledge, on the one side, and repression of otherness in the construction of universality, on the other, the institution of the public library has to serve multiple purposes. When it primarily acts as the regulatory institution of nation building, keen to serve a particular version of national identity to support the functioning of the nation-state, the preservation of multiplicity of knowledges requires disobedience, forking and complexification of the institution of the library and the subject of the librarian. The versioning of the position of the public librarian into a meta librarian institutes a new library.

The subject position of meta librarian is that of the one who intervenes and takes on the role of the public librarian, while being an amateur. A meta librarian safeguards and makes available knowledge and practices preserved in undesired or

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²¹ Croatians use the Latin alphabet for transcribing a language that was described as a single Serbo-Croatian language during the Yugoslavian period. It is possible to transcribe it either in the Latin or the Cyrillic alphabet. For more context, see "Knowledge Commons and Activist Pedagogies: From Idealist Positions to Collective Actions." Conversation with Marcell Mars and Tomislav Medak (co-authored with Ana Kuzmanić),

https://monoskop.org/images/7/7f/Jandric_Petar_Kuzmanic_Ana_2017_Knowledge_Commons_and_Activist_Pedagogies_From_Idealist_Positions_to_Collective_Actions_Conversation_with_Marcell_Mars_and_T omislav Medak.pdf

²² Tomislav Medak, "The Future After the Library. UbuWeb and Monoskop's Radical Gestures," in *Javna knjižnica / Public Library*, ed. Tomislav Medak, Marcell Mars, and WHW (Zagreb: WHW & Multimedia Institute, 2015).

unavailable books. Here, two further notions converge under the general auspice of the meta librarian: a *public custodian and a general librarian*.²³

Public custodian

Techno-cultural gestures and infra-structural actions inform and organize subject positions. The work of creating *Memory of the World* is physical labor: one person, working on it full time, was scanning 50 titles a day, delimiting the project's capacity of creation. This kind of work cannot be automated and does not scale well. Scanning and postprocessing requires time, which poses a clear bodily limit. This means that the titles need to be selected; with old books and magazines, one has to take individual decisions on what to preserve, and to what degree of precision in terms of resolution or annotation. Here, the custodian comes on stage. *Custodians.online*, a collective of shadow librarians, published letters in support of Library Genesis and Science Hub in 2015: here, shadow librarians use the term "custodian" as a self-definition.

The custodian preserves culture and knowledge, but in contrast to the private custodian who safeguards a collection entrusted to them until times change for the better, the *public custodian* is compelled to activate the collection. This might include converting formats, making files readable by a variety of e-readers, and organizing material, including references, but more generally, the public custodian is committed to making the collection available for public use.

The subject position of *Memory of the World* is that of a public custodian. It is called into existence by a crisis in the politics of memory. As an amateur historian, a public custodian is keen to preserve and create access to alternative pasts and futures. Anyone who participates in creating the project, bringing or scanning material, takes on themselves parts of this subject position, while also contributing to it as the main conceptual principle of the resource. It is from the point of view of the position of the public custodian that the claim to a different version of political and social history,

²³ "Before and After Calibre," *Memory of the World*: "When everyone is librarian, library is everywhere." It was accessible via this link during the time of writing: https://www.memoryoftheworld.org/blog/2012/11/27/before-and-after-calibre-2/

and a different relationship to the library and to the public, is made.

But the custodian is not only the position from which to salvage, to preserve and to take care of disappearing paper books. Shadow librarians use the idea of custodianship as an umbrella concept: they are united, as Mars and Medak state, by "gestures of disobedience, deceleration and demands for inclusiveness." ²⁴ These gestures are actions that help constitute the position of the public custodian. The subject position of a public custodian here can be maintained by a commitment to hosting a mirror, by registering and re-registering domain names, and by a multitude of other gestures. One doesn't need to be a giant of custodianship to be a custodian. Small gestures contribute to the subject position from which a claim to advocacy, construction and maintenance of "online infrastructures" of art and knowledge can be made. Shadow librarians specify them in course syllabi and online materials: digitizing a book on a scanner, PDF authoring, adding metadata, managing sublibraries, converting file formats, leaking files, removing DRM and syncing cataloguing software and e-readers are techno-cultural gestures performed from the subject position of custodian.²⁵ All these radical gestures reverse "property into commons" and "commodification into care."

General librarian

Public Library—a project and a conceptual proposal by Mars and Medak—is a catalogue of books shared through Calibre (open source software to organize PDF and EPUB files into virtual libraries), an index and a set of tools and tutorials. There is a minimal definition of a new kind of public library, developed by Medak and Mars: make your own collection of books available to the public through the catalogue (Calibre in their case). The catalogue software organizes the collection, adds and manages metadata and connects the collection and their readers. The readers contact librarians through the catalogue; librarians seed collections directly from their laptops.

²⁴ Marcell Mars, Tomislav Medak, "Against Innovation: Compromised Institutional Agency and Acts of Custodianship," *Ephemera* 19, no. 2 (2019), http://www.ephemerajournal.org/contribution/against-innovation-compromised-institutional-agency-and-acts-custodianship

²⁵ Tomislav Medak, Marcell Mars, "Amateur Librarian - A Course in Critical Pedagogy" https://www.mondotheque.be/wiki/index.php?title=Amateur_Librarian_-_A_Course_in_Critical_Pedagogy

This is a vision of a *general librarian*: similar to the notion of the general intellect, it is a librarian distributed through software—a librarian everywhere; everyone a librarian. The key technique of the subject position of a general librarian is the catalogue. The maintenance of the catalogue is the core gesture of the general librarian: because the catalogue is an abstraction, separated from the library, and a software tool, it semi-automates and partially liberates the librarian, while still requiring maintenance. The subject positions are sustained by actions and technocultural infrastructures, which they both create and are defined by. The general librarian is not a function of software, but a subject position mutually constituted by the book collection, the cataloguing tool, work put into managing catalogue software and some key concepts and values. "Let's share books" here becomes a point of view, a position from which a possibly universal but also polyvocal knowledge can be created by a very large network of small collections.

Underground librarian

In contrast, the subject-position of *underground librarian* relates to that of a heroic outlaw. Someone might contact a public custodian or a general librarian with an offer of 50,000 liberated books. They would not want to take care of the files, but seek to pass them on, for some other subjects and structures to process and absorb them into the pool of common resources. The aim of the underground librarian is to get the files and release them from constraints. Acting more like a leaker or interceptor of data, their key aesthetic is the move from something that is constrained or shackled to something unshackled, and whether it is used or not is of lesser concern. Custodians and librarians, by contrast, deal with rather small, selective collections. The gestures of stripping DRM or PDF watermarks and moving information flows that the underground librarian busies themself with are perhaps on a continuum with those of the public custodian and a general librarian, but have a different aesthetic intensity and duration: intervention, detouring, leaking, making untrackable are their main gestures.

Critical public pedagogue

AAAAARG, a text repository, was established by Sean Dockray to serve as a library for the *Public School*. An intervention into the field of education, it is rare among repositories as it has produced a strong community of users that catalogue, annotate, contextualize and discuss books. The position of *Aaaaarg* as an open collaborative website generated many ways of filtering content: one can go by discussions, recommended translations, thematic collections, related material, and many others. Sebastian Luetgert calls it a missing university library on a global scale, with a social layer of context around it.

It's hard to find junk on *Aaaaarg*. By deliberately slowing things down, impeding automated uploads and "sharing what you love rather than sharing everything," the techno-cultural gestures and structures of *Aaaaarg* come close to the communal investment of public custodians. But there is also a strong legacy of critical pedagogy, whereby education is political through and through.

The role of education is to teach how to learn. Pedagogy is (ideally) guided by the aim of endowing the learner with the tools of learning. Here, curricula or syllabi, among other educational instruments, organize and evaluate knowledge, raising critical awareness. In the last five years, the rise of online syllabi as a response to political struggles signaled a new turn for public education, both inside and outside the classroom. In "Learning from #Syllabus," Graziano, Mars and Medak analyze #Syllabus as an object that fuses the social justice movements' tradition of using educational tools, including teaching material, to "support political subjectivation" with the materiality of new media. #Syllabus is a web-based ordered list of links, circulated with the support of a social media hash tag, which abandons boundless user taxonomy and Google's indexing in favor of the creation of a crowd-sourced list of available resources and makes a pedagogical intervention on a specific politically urgent topic.

Critical pedagogy, self-education and public intervention as manifest in #Syllabus create the context for one of the subject positions of *Aaaaarg*: that of a *critical public pedagogue*. Such a pedagogue activates knowledge in specific ways, so that their students

²⁶ Valeria Graziano, Marcell Mars, Tomislav Medak, "Learning from #Syllabus," in *State Machine: Reflections and Actions at the Edge of Digital Citizenship, Finance, and Art*, ed. Yannis Colakides, Marc Garrett, Inte Gloeirich (Amsterdam: Institute of Network Cultures, 2019), p. 119.

can undergo a critical transformation. Here, pedagogue and students can swap places. Everyone is an eternal student, and, quite likely, also a pedagogue.

Multiform bibliographer

Monoskop acts not only as a library, but as a system of knowledge maps that includes references pointing far beyond Monoskop. Sean Dockray suggests that by disaggregating the repository function and the referencing function, its founder Dusan Barok makes the entire Internet his archive. Barok himself calls this work "indexing" Barok's indexing activates records by linking to them; it directs users by providing context, resources, and further bibliographies. In fact, the subject position of Monoskop is partially that of a researcher librarian, but overall it is that of a multiform bibliographer.

In the print era, a student starting work on a thesis was often advised to consult a bibliographic dictionary. Such a reference book on a specific topic looked like an encyclopedia, with entries on topics followed by an extended annotated bibliography of further reading. *Monoskop* is such a system for and of study, except that it also includes biographies, texts, a variety of media, different kind of references (for instance, to events), and generally such a huge variation of material, that the bibliographer in the making becomes richly multimedia and radically multiform.

Wiki is the technology of this subject position. Creating knowledge, but also re-organizing and activating the material of the web, wiki acts as a recording, pointing and mapping system. Research and annotation of knowledge in *Monoskop* is more than a curated index: the subject of *Monoskop*—a position from which it lives and grows and a user position from which to start the exploration of a topic—is that of an enhanced human browser. True to the original horizon of possibility of the World Wide Web, a universe of linked knowledge, here the hypertext mapping is updated to carefully constructed, but necessarily open narratives. The technically led subject-position of *Monoskop*, the logic of its construction, is that of a virtuoso forager, able to find results where there are none and follow their interests in constructing a wide

²⁷ Dušan Barok, "More Than Numbers, Less Than Words," *Javna knjižnica / Public Library* conference, Nova Gallery, Zagreb, June 2015. https://monoskop.org/Talks/More Than Numbers Less Than Words

range of knowledge frameworks. Encyclopedist, organizer of material, hypertext narrator, such a subject position is a curious combination of a classical formation of knowledge, the promise of hypertext, resistance to contemporary logics of walled gardens, where all links stay within one platform, and the contemporary informational condition of being overwhelmed by useless material but being unable to find anything beyond it.

Monoskop started as a mapping initiative; an impulse that still remains. Students are asked to make entries on *Monoskop*: a documentation of a learning process, mapping knowledge and history, creates a subject position from which to see oneself and the world in the mode of a wiki. Incomplete, fragmentary, light, it is multiple; mapping on the *Monoskop* wiki is a mode of research and of pedagogy, the Internet of the future, the discovery of Eastern Europe by Eastern Europe,²⁸ and many other multimodal, multimedia and multiform things.

Fancy general archivist and postmodern curator of the avant-garde

Ubuweb is a curated repository of artworks, extended by a multitude of related material to what Cornelia Sollfrank called "the cultural memory of the avantgarde." The subject position of *Ubuweb* is that of an archivist of a radically new kind. Such a new archivist does not ask for permission. Browsing the dark corners of the Web for files, they upload them to their archive, which over time acquires coveted status. If the copyright holder complains, the archivist enters into communication with them, sometimes succeeding in convincing them to allow access to their work in exchange for being part of a distinguished collection of artists. Such an archivist is a new, although critical, gatekeeper. Archiving becomes curation, and the archive starts functioning as an art institution.

Established 20 years ago, and still running on html 1.0, *Ubuweb* grew out of collections of modern and contemporary art that people at times personally gave to its

²⁸ Nanna Thylstrup, "The Licit and Illicit Nature of Mass Digitization," in Nanna Thylstrup, *The Politics of Mass Digitization* (Cambridge MA: MIT Press, 2018).

²⁹ Sollfrank, "The Surplus of Copving."

founder. Widely used in teaching art and small in size, it leads a precarious existence. Each file is provided with a download link bearing the imperative: "if you find something on the internet, save it." The technical-organizational aesthetics of the archive formulate a subject position that offers and challenges everyone to be an archivist, although of a different status. The *fancy archivist*, the curator, licenses certain kinds of art histories. As the archive can disappear any minute, everyone must become an archivist, a *general archivist*, fancy or not. Building on interpersonal networks, the fancy archive is always temporary, un-indexed, invisible, but hugely important. For its birthday, *Ubuweb* got a present from the custodians: mirrors.

Cultural analyst

0xDB, started in 2007, is an experiment in software development for a database of movies. Initially developed as part of the *Oil of the 21 century* project, it actualized, through software, an imaginary world: "this is how it could look." 0xDB offers a multitude of ways to represent, watch, understand, cut through, and study a movie. One can sort films by budget, genre, color, number of cuts, cuts per minute, the words in subtitles, and multiple other means. The result of the sorting is information intensive: it is a data visualization. 0xDB treats time-based media as a database, and offers creative ways to query it. The subject position of the project is that of a *cultural analyst*, where data analytics is applied to art and culture.

An intervention into software as a cultural system and a system for culture, Sebastian Luetgert and Jan Gerber's methodology is to start with the imaginary result and walk back. Here, the transversality of roles is emphasized: a software developer can have a creative role, and a point of view: what one sees is political. Working with Pad.ma, an online archive of video material, the team also developed a platform for alternative activist video that documents events such as mass murder during riots in Western India and Gujarat. This video material is not finished, cannot be attributed to authors and most often, cannot be published. This raw material, which is a process rather than an item, Luetgert says, requires fluid and dynamic handling from the technical system, in contrast to treatment of finished and authored films as individual complete units. Software here must protect the identity of the author, act as

a guard, and aid in enquiry. Proposing the position of a forensic film analyst, Pad.ma moves closer to the work of Forensic Architecture and to Wikileaks, where software is a weapon of investigation.

Conclusion

Subject positions offer points of view from which to make interventions, to create new relations, and to affirm alternative imaginaries. Such subject positions are maintained by gestures, actions, and ideas performed in techno-cultural structures. These two statements already present a program.

Firstly, a subject position is created not, or not solely, as a response to power, out of the self turning back on itself, but in relation to technology and information infrastructures, which shape relations to knowledge and art. The shadow libraries and repositories discussed above intervene in the organization of information and structuring of knowledge, art and culture. Their multiform cutting-through existing structurations creates conditions of possibility for the emergence of a diverse range of subjects. Above, I explored only a few subject positions, formulated specifically in relation to the question of intervention upon structuration of knowledge and art. But it is the optionality afforded by these projects as part of the commons that forms the basis on which subjects that can offer difference, whether in how to be a woman, how to act politically, or how to study, understand and act, can be developed. Difference starts with the possibility of choosing and creating subject-positions, rather than absorbing them by prescriptive encoding. This process relies on nutritious substrate, which can be made available or withdrawn, and where the means of availability or formulations of restriction are increasingly technical.

Secondly, it is a pragmatic program: doing things creates subjects, and ways of technical doing, including small gestures and long-term tending to the systems, figure subject-positions. Affection is key to creating and maintaining contemporary commons. Tending to the projects that constitute commons is a continuous individual and collective action. Care, affection, filiation are performed by small gestures of software installation or big gestures of registering domain names and hosting mirrors.

Bahktin also used filiation as the grounds of aesthetic construction and the

holding together of the subject. What is core to such a principle is that it makes relation the basis and condition of living: acquiring a subject position is achieved through relations, which, in these projects, are mediated and realized also by technology. The relations are multidirectional, and so it is also true that by creating a certain subject position, a re-formulation of a cut of the world takes place. The subject position is not only produced but produces—practices, environments—which, in turn, trickle further away, introducing changes to spaces perhaps not very much concerned with the questions at hand. Once a subject-position, a point-of-view, a techno-cultural gesture is established, it travels: in networks, in space-time, in methods, in disciplines, in politics, in imaginaries. In that, the subject-positions explored in this text exhibit capacities to transform things beyond their immediate fields of operation. The transformations these subject positions bring about concern principles of the organization of knowledge and ways of knowing, politics of memory and geopolitical histories, modes of abstraction and distribution of authority and care alike, with and through technical systems, disciplinary reproduction or undoing of domination through pedagogy, techniques of vision and learning, agency, and many others. They concern processes and infrastructures of societal life that need to keep changing in order to sustain and generate inhabitable spaces.