> enhances, rather than decreases, the justifiability of state funding for basic science and research, as the spillover effects of publicly funded information production can now be much greater and more effectively disseminated and used to enhance the general welfare" (ibid: 22).

In the next section I will briefly outline the shared tactics of the Free Software and Free Culture movements that define their strategy to foster an institutional ecology of freedom and autonomy.

Our discussion will soon show that regulatory intervention by the state – *in the absence of a revolutionary reform of the property relations that govern the technostructural underpinning of social production* – is absolutely crucial for Free Culture in the struggle against privatising forces.

1.3.2 Property and the tangible/intangible divide: a policy of what?

In this section I examine the reasoning behind the particular framing of the intangible realm that characterise information exceptionalism.

Siva Vaidhyanathan, prominent cultural environmentalist and professor of Media Studies and Law at the University of Virginia, writes that "[i]t is essential to understand that copyright in the American tradition was not meant to be a "property right" as the public generally understands property" (2001: 11) and "[c]opyright should be about policy, not property" (ibid: 15) and "[c]opyright is not property as commonly understood. It is a specific state-granted monopoly issued for particular policy

reasons" (ibid: 253). Moreover "[c]opyright was a matter of policy, of a bargain among the state, its authors, and its citizens" (ibid: 23) and "Jefferson even explicitly dismissed a property model for copyright" (ibid.).

That copyright is a matter of policy, not property might sound strange to a lawyer or a philosopher trained to understand copyright as a particular instance of property relations with a temporal limit and who understands property as a matter of policy. Some things do not quite add up. Nevertheless, that copyright is a matter of policy, not property, is a point that the founder of the Free Software Foundation, Richard Stallman, together with other advocates of "Free Culture", wants us to accept[18].

Essentially, the Free Software and Free Culture movements reject the concept of property and instead choose to frame issues pertaining to ideas, information and knowledge - or the intangible realm - in terms of freedom, liberty, human rights, policy, intervention, and regulation. Anything but property, but preferably "policy".

Two mediate questions arise from this position: (i) What is policy? (ii) Why should we choose to adopt one term instead of another? I will answer them in turn.

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18 The presentation of the Free Software Foundation's position on copyright as policy, not property that follows is in great part an outcome of an extended email exchange with Richard Stallman. In order to understand FSF's view on these matters I commenced the exchange and sent, so far, 44 emails between May 12, 2007 and January 30, 2008. Stallman responded with 58 emails between May 13, 2007 and January 18, 2008. In the original thesis manuscript I sincerely thanked Richard Stallman in the acknowledgements for taking his time to engage in this exchange. I do so here again.

What is policy? Is there something in the word that clearly delimits it from property? What does policy actually mean and where does the term come from? It is term that is etymologically compounded by two roots. The Greek "polis" - πόλις – which means "city" or "state" and also "citizenship" or a "body of citizens". In other words, a rather general term suggestive of "political society" and those "who make up that society", either individually or collectively, or their status within that political society. The second root of policy is the Latin "politus", which means "polished" in the sense of "refined". In late Middle English the compounded "policy" ambiguously referred to "political sagacity" *and* "political cunning", the former presumably the meaning it had for those in power, while the latter likely reflects the views of common people. Despite the ambiguity, or perhaps exactly because of this ambiguity, policy referred to "what those in power are doing, how they rule society". The modern term policy, then, enters the English language conveying the meaning of "a constitution", which is now rare or obscure, but in 18th century political science referred to "government, administration"; or was equated with "polity", which in turn meant "civil order", "administration of a state", "civil government" or "a particular form of political organization" (OED 1955: 1536-1537)[19]. In other words, policy is a broad term that we may say refers to a variety of activities that a state performs as part of the governance of its people.

In the context of capitalist democracy, therefore, the conventions that institute its particular form of private property is a central

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19 The term also means "a document containing an undertaking … to pay a specified amount … in the event of a specified contingency", or a "promissory note", both of which are suggestive of the contemporary usage in "insurance policy".

part of the state's *policy*. It is a policy that gives rise to certain laws, such as “theft” codified into a statutory offence in the Theft Act 1968 in the UK, where Section 1 reads “A person is guilty of theft if he dishonestly appropriates property belonging to another with the intention of permanently depriving the other of it; and “thief” and “steal” shall be construed accordingly” (Theft Act 1968). Private property is part of the state's policy and the Theft Act is an enactment of that policy, which is necessary to secure the stability of possessions as declared in the policy.

If we return to the claim that “copyright is policy, not property” it becomes obvious that there is a conflation at play, which is deployed for tactical purposes. The choice of policy over property is presented as a matter of tactic, rather than analysis: tactically it is decided to focus on “policy”, despite an analytical awareness that property can take on many different forms. This tactic is chosen on the assumption that the public cannot understand the term “property” in the way that lawyers and philosophers are able to.

However, property *is* a form of policy – or it is a manifestation of policy. We may say, for instance, that “private property is a central ingredient in foreign aid policy in order to further entrepreneurship” or that “private property was central to Thatcher's reasoning for the policy to turn council housing tenants into house owners”. Or, expressed differently:

> “If it is true—as it must be—that copyright is policy, then it is equally true that all property rights are policy” (Mossoff: 2005: 33).

The claim that copyright is a matter of policy, not property can also be unpacked differently. Instead of arguing whether property means this or property means that – in the context of what are

essentially *artifices of justice* at any rate – we can ask what debates around each of these respective issues entail. What kind of questions are asked in discussions about property relations and what kind of concepts are at play in discussions about copyright. Here it "is easy to see that every tangible property entitlement has arisen from a crucible of moral, political, and economic analyses, and thus implicates the same questions about utility, personal dignity, and freedom that now dominate the debates over digital copyright. The preeminent property cases that every law student studies in the first year of law school are exemplars of this basic truth" (ibid.). Nevertheless, investigating the claims of the "information exceptionalists" further will be instructive[20].

As part of the tactic to substitute policy for property in the context of understanding copyright, Free Culture advocates claim that copyright understood as property is a modern invention carried out by scheming corporations using the rhetoric of (natural) property to distort the public perception of the underlying and original policy of copyright (Stallman 2004)[21].

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20 I am slightly altering Mossoff's (2005) terminology, who calls the Free Culture advocates "Internet exceptionalists".

21 This "fact" has a curious history in itself. Hughes (2006) calls it a result of the "scholarly house of mirrors" (ibid: 1001) and notes that it seems to first appear in Vaidhyanathan (2001: 11-12) in reference to Lemley (1997). There is no other origin of this "fact", which has become common currency in the Free Software and Free Culture movements. As Hughes writes, it was cited twice by Lessig in footnotes stating "the term intellectual property is of relatively recent origin" (2004) and "a touch less guarded … "the term is of recent origin"" (2001). Stallman uses the authority of "Professor Mark Lemley, now of the Stanford Law School" to state that "the widespread use of the term "intellectual property" is a fashion that followed the 1967 founding of … (WIPO)" (Stallman 2004). It turns out that Lemley casually, in a footnote, mentions that the "modern use of the term "intellectual property" as a *common descriptor* of the field *probably* traces to the foundation of the World Intellectual Property Organization" (Lemley: 1997:

However, the

> "...story supposes that a multilateral treaty would be written and an international agency established with a wholly new name that no one was familiar with. In fact, WIPO's predecessor international agency was called the "United International Bureaus for the Protection of Intellectual Property." It was commonly known by its French acronym, BIRPI. BIRPI was formed in 1893, as a combination of two small agencies that had been established to administer, respectively, the Berne and Paris Conventions. Thus, "intellectual property" was a conscious, nineteenth-century category created to subsume both "literary property" (Berne) and "industrial property" (Paris)." (Hughes 2006: 1005-1006)

Further good evidence for the tradition of understanding copyright and patents as property has been provided recently as a response to these seemingly misleading claims:

895; emphases added). This clearly shows that he is *not* speaking of copyright, but of the subsumption of *all* of the particular legal arrangements known as intellectual property rights under one common banner. On the other hand it shows the "viral power of a statement by a respected academic" (Hughes 2006: 1003). Moreover, the publication in which Lemley gave birth to this fast circulating "fact" was in fact a book review of James Boyle's seminal work (1997), the work with which Boyle founded the cultural environmentalism movement (which has become synonymous with the Free Culture movement). Lemley's review was relevantly called "Romantic Authorship and the Rhetoric of Property".

> “There can be little question today that intellectual property assets are forms of “property.” The Patent Act expressly declares that “patents shall have the attributes of personal property” and the Supreme Court acknowledges them as such. The Copyright Act states that “ownership of a copyright may be transferred in whole or in part by any means of conveyance or by operation of law, and may be bequeathed by will or pass as personal property by the applicable laws of intestate succession.” (Menell 2007: 37)

Consider also a publication that pre-dates cultural environmentalism and Free Culture:

> “English law has considered copyright a form of property. An 1842 decree asserts that "Copyright ... shall endure for the Natural Life of Such Author and shall be the Property of Such Author". In other decrees the terms "the owner of the copyright," "ownership of copyright" and "proprietary rights" are mentioned“ (Matuck 1993: 406; see also Mossof 2005, 2007).

There is no evidence to suggest that intellectual property is a new term, on the contrary. To understand why Free Culture and Free Software advocates are rejecting the term, we need to understand their perception of the public imagination and the public's capacity to understand issues concerning property and social organisation. Lessig explains:

> “If you're a lawyer, it's OK to think of intellectual property as property, because we're trained to use the word property in a careful way. We don't think of it as an absolute, perpetual right that can't be trumped by anybody. We understand property rights are constantly limited by public-use exceptions and needs, and in that context we understand intellectual property to be a very particular, peculiar kind of property -- the only property constitutionally required to be for limited terms. It's clearly established for a public purpose and is not a natural right … The real problem is when people use it in the ordinary sense of the term property, which is "a thing that I have that nobody can take, forever, unless I give it to you." By thinking of it as property, we have no resistance to the idea of certain great companies controlling "their" intellectual property forever. But if we instead use terms like monopoly to describe the control that companies like Disney have over art objects like Mickey Mouse, it's harder to run naturally to the idea that you ought to have your monopoly right forever” (interview in Walker 2002).

Copyright, then, *is* property, for a lawyer and a philosopher, and property for a lawyer and a philosopher *is not* simply private property based on a natural right that requires no justification. For the “public” and in “ordinary” usages, on the other hand, property is a natural right according to Lessig; Stallman agrees:

> "I, along with most people, consider property rights as natural rights, something people are simply entitled to. They don't need any specific justification; rather, exceptions need justification" (Stallman 2007: email)[22].

Do most people really think that, I wonder? However, it is not a question that is really relevant here. Two principles prevent us from entering into such questioning. Firstly, this is an academic and scholarly exercise, to the best of my abilities, and secondly, we are certainly not in the business of misleading "the public" on the basis of the assumption that "the public" is unable to understand property properly. If anything, a very careful explanation to "the public" of what property means for lawyers and philosophers would be called for, rather than a misleading, non-factual deviation. Such a careful explanation will be provided in Chapter 2. Let us here disentangle the confusion, which will reveal a different effect of the "framing effect".

Stallman uses the term "framing" to strengthen the Free Culture claim and justify the tactic to treat the public as too unwitting:

> "Bringing the word "property" into contact with this issue in _any_ fashion frames the issue in favor of whoever is the "owner" of the "property". Everyone can sympathize with "Keep off my property! I can use my property any way I like." And that is the basis that non-philosophers will use to respond to your statement … In the "network neutrality" debate, that framing favors AT&T. In copyright issues, that framing favors the author or publisher.

22 Email written December 29, 2007. On file.

> The issue here isn't the history of Western modern ideas of property rights. (Property rights existed before 1700.) It's about what people (other than philosophers) think today. I agree with you that, at the fundamental level, property rights are conventions set up by society, and that these conventions could be set up in various ways, and that we can present arguments in favor or against various proposals. None of these conventions is beyond the domain of questioning, and although I accept the idea of property rights as the default for physical objects, I can consider the question. I think you will find that a large part of the public won't go that far. Merely to call patents a "property right" will make it difficult for many people even to entertain opposition to them.
>
> You're probably aware of the effect that the way of framing an issue has on people's thoughts. Perhaps philosophers have trained their minds to the point where they can overcome this effect -- but not most people. If we frame copyright issues in terms of "property", that is in practice a terrible handicap" (Stallman 2008: email)[23].

There is good reasoning and cogent argumentation behind the tactical choice to *not* frame the politics of Free Culture and Free Software in terms of property. However, I am wary of discussing legal and philosophical concepts in a way defined and determined in scope by popular opinion, especially in the context

23 Emails written January 17, 2008, and January 18, 2008. On file. The concept of "network neutrality" will be explained in Section 1.4.2

of the free flow of information, ideas and knowledge - and a Free Culture in general. I lean toward sharing knowledge and skills with “the public”, rather than simply assuming their ignorance.

Indeed, I argue that framing Free Software in terms of property has great potential. Imagine what would happen if Free Software was understood as property and the public came to learn that copyright, as a form of property, could take very different and shared and collective forms and be temporally limited. The concept of property would be relativised, so to speak, and no longer take the particular form that appears to be tattooed onto everyone’s mind, namely the kind of private property that characterises capitalist democracy. For Ayn Rand, subverting the understanding of one intellectual property right means nothing other than the dissolution of “all other rights”:

> “Patents are the heart and core of property rights, and once they are destroyed, the destruction of all other rights will follow automatically, as a brief postscript” (Rand 1966: 128).

Currently, property is understood in what Stallman and Lessig so cogently noted was an incorrect manner: a natural, absolute, perpetual right to do whatever you please. Free Software, however, is very differently configured and if understood as property would force upon that concept substantial reorientation. If indeed framed in terms of property, Free Software might constitute a threat to capitalist property, because it reveals that capitalist property is only one of many possible ways of configuring property. Viewed upside down, then, the tactical framing (i.e. *not* in terms of property) that is central to Free Software politics, serves to protect Free Software from public *mis*understanding, just as much as it serves to protect private property from public *un*derstanding.

Understanding Free Software as property potentially provides a fresh view on property that is not alien to lawyers and philosophers and which would be enlightening to “the public” (whoever that may be). It opens a door to the politics of property, which, according to the Free Software and Free Culture movements, is suffused with misunderstandings. A lack of information, I claim, is a signal to open up the black box of property and let insights circulate freely; and *not* a signal to keep the black box of property closed. Yet, Stallman disagrees:

> “Our goal is to establish relations about software which are not property relations. There are rules, yes; but these rules are not like property rights (unless you stretch that term so far it will snap)” (Stallman 2007: email)[24].

Snapping property is precisely what I am aiming at. The institution of property is a core element in political thought. Revisiting it, revising it, and understanding property in new contexts in the same way that you re-read a novel to grasp dimensions that you had previously failed to notice, is a recurrent political task. In times of change, when the technological, cultural and social circumstances change around us, we need to address the core rules and laws that typify society to ensure that they fit and are sensible in the new context. One such core rule or law is property and it is necessary to continuously redefine its boundaries. That is my claim, but that is also where my view diverges from Stallman’s:

24 Email written May 15, 2007. On file.

> "I think the "institution of property" is an overbroad idea, not useful for thinking about political issues … If [redefining the boundaries of property] is your goal, it seems that we are fundamentally opposed" (Stallman 2008: email)[25].

Because of this divergence, the "policy approach" that defines Free Software and Free Culture is irreconcilable with an anti-capitalist position. That incommensurability is clearly reflected as Lessig states his position with regard to private property:

> "I [do not] condemn "proprietary culture." Proprietary culture has been with us from the start and for most of our history has served creativity and culture well. What I do condemn is extremism—the shift from the standard view to an extreme version of "proprietary culture" that could easily become embedded in the digital economy" (Lessig 2005: 63).

Given that Lessig primarily sees property as referring to the tangible realm only, the statement that proprietary culture serves us well must include reference to exclusive ownership of land, the means of production and distribution. In short, Lessig refers to the very heart of the capitalist economy, which social movements all over world have resisted for hundreds of years. Lessig thus defends the industrial machinery that has landed humanity in an unprecedented ecological crisis and a relatively profound and prolonged economical crisis. Private property rights are embraced uncritically – except for in cyberspace – in submission to the invisible hand with the violent fist. The

25 Emails written January 17, 2008, and January 18, 2008. On file.

uncritical view on existing property regimes is here confirmed by Benkler:

> "This is not to say that property is in some sense inherently bad. Property, together with contract, is the core institutional component of markets, and a core institutional element of liberal societies. It is what enables sellers to extract prices from buyers, and buyers to know that when they pay, they will be secure in their ability to use what they bought. It underlies our capacity to plan actions that require use of resources that, without exclusivity, would be unavailable for us to use" (Benkler 2006: 23-24).

The market is a useful and integral element of a liberal society of the kind that Benkler is advocating, because it facilitates contractual relations between rational agents that enable them to plan actions and produce things. The market is good for humanity, *as long* as it behaves nicely in cyberspace. The point of Free Culture "is not to rethink real property but to explain the ways in which the economic theory of real property falls short when applied to the rather different world of intellectual property" (Lemley 2005: 1097). When it comes to the economic theory of "real property" as they call it, there is nothing to question, because we can "say with some confidence that a right of physical exclusion works as a legal matter because its benefits exceed its costs" (Lemley 2005: 1099):

> "Real property rights do in fact serve two valuable goals. First, they prevent rivalrous uses by multiple claimants to a particular piece of property and therefore avoid the tragedy of the commons. Second, they allow their owners to invest in improving or developing the property" (ibid: 1098).

For the Free Software and Free Culture movements, we have seen, (mis)understanding property is a matter of tactic, not analysis. The overall strategy, it has been revealed, does not include a critical perspective on ownership in the tangible realm. The analysis of this chapter, on the other hand, will show that this tactical approach at the expense of a thoroughgoing, critical engagement leaves Free Software and Free Culture eternally vulnerable to enclosure. That is because exclusive ownership of the technostructural underpinning of cyberspace – the materiality of cyberspace, as it were – permits those owners to seek rent in and prioritise traffic on their network: exclusive, private ownership in the tangible realm permits an extraction of wealth from activities that unfold in the intangible realm. There is no such thing as a purely immaterial mode of production or circulation, not even dreaming or telepathy come close. Nothing in cyberspace exists without a material foundation, as we shall see in the next section. For that reason, Free Culture must appeal to the state to ensure that capitalists play ball in cyberspace and do not extract wealth in the manner to which they are accustomed.

By implication, then, Free Culture requires a strengthening of the state – and an *always strong* state – while the problems of private property rights in the tangible realm remain unquestioned. Consequently, the novelty of the social relations for which protection is sought are instead conceptualised in terms that rather permit for market forces to profit from them, than provide protection in a substantial sense. From an anti-capitalist perspective the celebrated co-productive relations are hence lost in the sense that they are not applied to that province of our knowledge and legal systems called property. It is, however, a desolate province in urgent need of cultivation. Understanding Free Software as property and commons-based peer production as a new mode of production that instantiates a non-capitalist

space in society on the basis of novel property configurations, I argue, will cultivate an understanding of property that is very instructive.

In the next section I consider the interpenetration of the tangible and intangible realm to further expose the problems of the “policy approach” of the “information exceptionalists”.

1.4 Material foundations: on cables and machinery, food and shelter.

> “A child of five would understand this. Send someone to fetch a child of five” (Groucho Marx).

1.4.1 The interpenetration of tangible and intangible.

In this section I first present some facts and figures about the materiality and energy usage of cyberspatial activities and then briefly consider the validity of the capitalist claim that informational goods require investments to be made, insofar as the material realm is organised by means of exclusive, private property rights.

The very obvious problem of separating the intangible realm from the tangible realm is that the intangible realm necessarily relies upon the tangible realm. It is not possible to send emails or surf the web without hardware and networks. The environmental impact of the IT industry was perhaps first noticed by the Silicon Valley Toxics Coalition (SVTC n.d.), which was formed in 1982 after concerned citizens discovered leaks at manufacturing plants of IBM and Fairchild Electronics which were the suspected cause