

## CHAPTER 9

# Towards a Normative Theory of the Intellectual Commons

### 9.1. Introduction

This chapter builds upon the ontological, epistemological, historical and social research outcomes of the book. The second chapter of the book exhibited the elements of the intellectual commons, i.e. commoners, communities and common pool resources, and highlighted their strong ontological connection with personal autonomy and practices of sharing and collaboration. The third chapter was an analysis of the main characteristics of commons-based peer production from the perspective of contemporary theories of the intellectual commons. The fourth chapter demonstrated the inherent sociality of cultural production across history. Chapters 5–8 provided solid research findings on the social value of the intellectual commons. This chapter is purported to constitute the normative denouement of the book, by laying down the foundations for the critical normative theory of the intellectual commons and the moral justification of an intellectual commons law. The chapter is structured into six interlinked sections. The next section sets out the basic tenets of a critical normative theory of the intellectual commons. The subsequent four sections examine the normative dimensions of the intellectual commons, i.e. personhood, work, value and community. The concluding sections briefly list the contours of an intellectual commons law in alignment with the normative evaluations of the chapter.

### 9.2. Foundations of the Critical Normative Theory of the Intellectual Commons

The critical normative theory of the intellectual commons is founded on (i) an explicit orientation towards progressive social transformation, (ii) the dialectics

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between potentiality and actuality, (iii) the interrelation between structure and agency, and (iv) the moral significance of the dimensions of the intellectual commons.

In terms of its orientation, critical normative theory is guided by the 'categorical imperative to overthrow all conditions in which man is a degraded, enslaved, neglected, contemptible being' (Marx 1997, 257–258). The critical normative perspective asserts that policy choices in relation to the organisation of intellectual production, distribution and consumption are fundamentally political. These choices not only frame our freedom of creativity and innovation but also determine the evolution of our science, technology and culture and influence the quality of our public sphere, channels of political participation and networked information economy. Therefore, the question of how we govern our creative practice relates in a sense to the broader question in which society we want to live in. According to the critical normative perspective, the rules governing our creative practice ought to be designed according to what is morally right for society. It is, hence, mainly founded either on deontological moral arguments in favour of the inherent social value of the intellectual commons or on a rule-based consequentialism oriented towards countering social domination and promoting freedom, equality and democracy. Within this framework, the intellectual commons are held to embrace social relations, which are inherently moral because of their value for collective empowerment, social justice and democracy. Productive communities of commoners are considered to contribute to the welfare of both their members and the wider public and to cultivate sets of commons-based communal relations with inherent moral value. In this light, commons-based creative practices are morally justified in respect of their value for collective empowerment, social justice, freedom from domination, cultural diversity and democratic participation. Based on this normative perspective, the critical normative theory of the intellectual commons accommodates, on the one hand, a thorough critique of contemporary intellectual property laws and, on the other hand, an adequate moral evaluation of the social potential of the intellectual commons for social welfare, freedom and democracy.

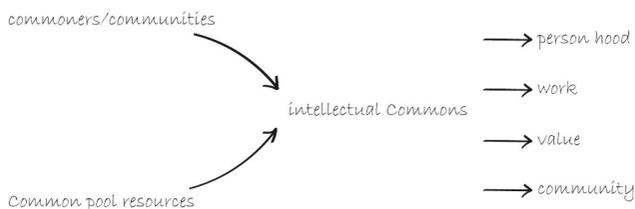
The critical normative perspective of the intellectual commons is further determined by the dialectics between the actuality and the potentiality of contemporary intellectual production, distribution and consumption, with a definite orientation towards the realisation of the positive social potential of commons-based practices. Such an approach recognises the social value of the intellectual commons as the cornerstone of our culture, science and technology and as a major part of contemporary intellectual production, distribution and consumption. In addition, the critical normative approach acknowledges the phenomenon of social creativity and innovation at the cutting edge of contemporary economic and social transformations and its immense social value. It is also receptive of the capacities of contemporary information and communication technologies to unleash the powers of the social intellect. Hence,

it is argued that an institutional ecology for commons-based peer production ought to be designed in such a way as to decouple the current conjoinment of intellectual commons and commodity markets under the rule of capital and provide the institutional infrastructure for the exploitation in full of the potential of the intellectual commons for self-development, collective empowerment, social justice and democracy.

The ‘philosophical anthropology’ of critical normative theory is determined by its approach to the dialectics between structure and agency. Contrary to one-dimensional approaches that view creators either as pre-social agents or as entirely socially determined, the critical normative approach takes the stance that the intellectual commons emerge from a dialectical interrelation between the individual agency of commoners and the communal structures in which they participate. In the context of commons-based peer production, individual creators interrelate to produce in community as a collective subjective force, while production takes place as a collective and socialised practice essentially based on sharing and collaboration. Within this framework, individual creative activity is immersed in cooperative production. As such, individual contributions are inextricably fused and entangled in an inseparable whole, the value of which is superior to the sum of its parts. Individual well-being is therefore unattainable without collective well-being. In this context, the essence of the link between the commoner and her intellectual work is understood by virtue of the links between the commoner, her community and society in general. Hence, in all cases that private interests justify the award to commoners of individual rights upon common pool resources, such rights are granted on the condition and to the extent that they operate to the virtue of the relevant community and the wider society.

Last but not least, critical normative theory commences its moral argumentation from the ontological elements of the intellectual commons. As already exhibited in the second chapter of the book, the intellectual commons are held to be the outcome of the interrelation between, on the one hand, their subjective elements, i.e. producers and communities, and, on the other hand, their objective element, i.e. commonly pooled intangible resources. Yet, at the point of production such elements are transformed and sublated to a higher level of ontological complexity into commons-based forms of personhood, work, value and community. Producers are interpenetrated by communal relations and transformed into commoners, exhibiting novel characteristics of personhood in community with their kind. Intellectual work in the form of individual contributions is transformed into a commons-based peer proto-mode of production. The dialectical interrelation between the subjective and objective elements of the intellectual commons produces commons-based forms of value, which circulate within and beyond the communities of the intellectual commons. Finally, through the productive practice, communities are also in themselves constantly reproduced, while communal relations are diffused in society. This practice of transformation is depicted in Figure 9.1.

The Normative Dimensions of the Intellectual Commons



**Figure 9.1:** The normative dimensions of the intellectual commons.

Source: Author

From a critical normative perspective, personhood, work, value and community are thus considered dimensions of the intellectual commons with moral significance. Each of the following sections gives an analysis of the ethical considerations with regard to these four dimensions with the aim of constructing a coherent and integrated normative theory for the intellectual commons.

### 9.3. Personhood

Starting from the premise that human beings are social beings, the critical normative theory of the intellectual commons takes the position that human agency is dialectically interrelated with social structure. Contrary to opposing common understandings of intellectual production as a strictly either solitary or collective endeavour, the critical normative perspective approaches the creative practice as a constant dialectical exchange between the poles of agency and structure, through which both the creative individual and the intellectual commons community are being constantly reconstructed by their mutual influences.<sup>49</sup> The task of the philosopher is to unearth each time the particularities of such an exchange and determine the impact exerted by each dialectical pole.

Personhood in the context of the intellectual commons arises in the form of the commoner. The characteristics of the commoner are two-dimensional. On the one hand, individual contribution to intellectual production takes the communal form of sharing and collaboration among peers.<sup>50</sup> On the other hand, participation in the productive community influences the commoner's personal world view, incentives, values and identity.<sup>51</sup> Within this framework, personhood acquires characteristics, which have moral significance. The contribution of the commoner to the community is strongly connected with the freedom of science and culture and with human dignity. The influence of the community on the commoner is evaluated from the perspective of the capacity of communal relations to accommodate personal autonomy and cultivate self-development.

Perspective	Moral significance
Commoner → Community	Freedom of science and culture
	Human dignity
Community → Commoner	Personal autonomy
	Self-development

**Table 9.1:** The moral significance of the commoner.

*Source: Author*

The critical normative theory of the intellectual commons holds the unrestricted freedom to contribute to the intellectual commons to be fundamental for the well-being of commoners, communities and society in general. Concomitantly, it gives moral priority to the right to participate in scientific progress and cultural life in the form of a general freedom of scientific research and creative activity within the intellectual commons, both individually and in association with others. Embracing this normative premise has important repercussions in terms of positive law. At the level of human rights law, the participatory aspect of the human right to science and culture is given equal weight vis-à-vis the aspect of authors' exclusive rights established on international human rights law treaties. Secondly, the human right to science and culture is given primacy over international or national intellectual property law, on the legal grounds that the promotion and protection of human rights takes precedence over any other objectives and obligations of signatory states of international human rights treaties. Following the above, it is held that states are morally committed to respecting, protecting and fulfilling the freedom to contribute to the intellectual commons, thereby abstaining from its restriction through intellectual property laws, which are not compatible with international human rights treaties. In addition, the critical normative theory of the intellectual commons holds that the freedom to contribute to the intellectual commons ought to acquire statutory content substantive enough to give commoners the ability for its meaningful practice. Such a substantive normative content to the human right to participate in scientific progress and cultural life within the intellectual commons shall include (i) the right of everyone to access the public domain without discrimination; (ii) the freedom of all to contribute to the scientific and cultural commons, especially the freedoms to create, share, collectively transform prior or newly produced resources and pool them in common; (iii) the right of communities to defend the intellectual commons from enclosure or commodification and receive compensation from any type of commercial use of common pooled resources; and (iv) an enabling social environment fostering the foregoing rights and freedoms through commons-oriented state policies.

The critical normative theory of the intellectual commons further asserts that participation in the intellectual commons is inextricably connected with human dignity. Access to the fundamentals of information, knowledge and

culture is a prerequisite of one's capacity to exercise all other human rights and freedoms. Furthermore, the freedom to contribute to the intellectual commons is essential for commoners' autonomy and self-development. Therefore, the deprivation of one's access or freedom to take part in the scientific and cultural commons disregards her dignity as a person. The extensive enclosure of the intellectual commons disables individual autonomy to the extent that it may constitute an offence to the human dignity of impoverished individuals without the social and economic means to restore access to our intellectual commonwealth. As a result, it is claimed that the freedom of participation in the intellectual commons lies at the core of human dignity and ought not to be restricted, should commoners be paid due respect as dignified individuals. Along the same lines, commons-oriented rules and institutions are ethically necessary either on the ground that the latter shield from private appropriation artefacts essential for authors and inventors to express their creative 'wills' or on the ground that they create social conditions conducive to creative intellectual activity, which is in turn important to the flourishing of individuals as autonomous moral agents.

Apart from the foregoing, the peer relations of the intellectual commons are deontologically justified on individual autonomy and personal self-development. First of all, any form of artistic expression and scientific discovery is an elemental exercise of personal autonomy and self-determination. Creativity and innovativeness are generated through the activation of superior intellectual human capacities and qualities, such as enquiry, critical reflection, inspiration and imagination. The self-emancipatory aspect of these qualities is what constitutes autonomous human beings. Therefore, the freedom to contribute to science and culture can be claimed as the upmost expression of individual autonomy, an upfront act of changing the world for the better. Secondly, creativity and innovativeness are fundamental to personal self-development. The active participation in one's scientific and cultural environment is important to personal well-being. Accordingly, creative capacities are closely bound up with the way we constitute ourselves, posit ourselves in the world and draw up our short- and long-term life plans. In addition, the practice of creativity and innovativeness are strongly connected to human flourishing. Becoming creative is the medium to proper self-development and the fulfilment of one's own potential. Hence, the self-constituting aspect of the creative practice render it an essential element of personhood. Nevertheless, self-development presupposes one's ability to access and transform resources in his or her social environment (Radin 1982, 957). Communal relations and commons-based practices are thus held to be moral and worthy of protection and institutional promotion, because they embrace the capacity of individuals to express autonomously, self-develop and realise their creative capacities to the full.

In general, the critical normative theory provides moral justifications of the intellectual commons from the perspective of the creative individual as an end in herself and the concomitant imperative for her empowerment through

appropriate social institutions. From this theoretical prism, intellectual property laws are subsumed under the framework of international human rights treaties, which then become the primal legal institutions for the regulation of contemporary intellectual production, distribution and consumption. Furthermore, the deontological and positive law foundations of the right to participate in the intellectual commons are held to justify an extensive legal status of the public domain in terms of both the freedom of access and transformative use and the obligation of states to respect and empower such freedom. As a result, such an ethical theory strikes an equitable balance between the right to participate in science and culture and individual authors' rights within the system of human rights law and, therefore, morally justifies the reform and reorientation of intellectual property laws in such a direction.

#### 9.4. Work

The critical normative theory of the intellectual commons commences from a conception of the creator as a socio-historical and yet autonomous person in the conduct of her creative practice. Creators are socio-historical selves in the sense that they are embedded in their social and historical context. Their creative cognitive practices, such as their use of language, attribution of meaning and construction of aesthetic values, are defined interpersonally vis-à-vis their co-creators, audience and wider society. The experiences fuelling their imagination are related to their social context. Their emotions and affects have interpersonal causes. Their motivations and overall self-narrative are heavily determined by reference to the groups they participate and the society they live in. Yet, creators are autonomous in their creative practice in the sense that they are capable of self-reflecting on their socio-historical context in the conduct of producing intellectual works.

Socio-historically framed creativity only partly accounts for the advancement of arts and science. Additional traits inherent to intellectual production depict a view of authors and inventors that is far away from the dominant conception of the Promethean or solitary creator. In practice, creators quarry the form and content of their intellectual achievements from the vast deposits of information, knowledge and culture accumulated through time by the collective endeavours of prior generations.<sup>52</sup> Across history, authors and inventors have worked on their creations directly or indirectly through practices of sharing and collaboration.<sup>53</sup> Creativity and innovativeness are practices in which the singular is interrelated with the plural, with the mediation of relations of production, social norms and positive law. Hence, from a wider perspective, intellectual work is not strictly attributed to the individual creator but rather refers to a social relation in which the latter's contribution operates as input to social modes of intellectual production, distribution and consumption.

Work in the context of intellectual production has moral significance. The link between the creator and the outcome of her work gives rise to ethical considerations about the protection and promotion of certain interests of the creator vis-à-vis the collectivity. The link between the community and the collective productive output of its members calls for the respect of the interests of the community by society in general. And the common interest of current and future creators to access and work upon the public domain requires its protection and promotion from generalised enclosure and commodification. Whether individual or collective, rights upon the use of intellectual works presuppose moral demands and corresponding duties to respect the foregoing interests. In accordance, the ethical considerations brought about by intellectual work are analysed in the table below from the perspectives of the creator, the productive community and society in general:

Perspective	Moral significance
The interests of the creator	Work/commons mix
	Joint authorship
The interests of the community	Collective work
	Inherent sociality of intellectual work
The common interest	No harm to others
	No spoilage of the commons

**Table 9.2:** The moral significance of intellectual work.

*Source: Author*

Within the framework of the critical normative theory of the intellectual commons, the rights of creators upon the products of their labour are determined by the morally significant elements of the social relation of work. These are located in the link of the creator's individual contribution with the public domain and the work of others. The work/commons mixing argument asserts that intellectual works ought to be managed as commons rather than property, because such works are built upon intangible resources that already embody the work of prior generations. In contrast to natural resources, the public domain is thus constituted by objects that do not lie in a primordial state of nature. Instead, it is a social domain of information, knowledge and culture commonly pooled by the accumulated efforts of prior generations. Since the raw materials of intellectual production already incorporate the work of others, their interests ought to be taken equally into account as those of contemporary creators. Hence, in the absence of contractual means with prior authors and inventors, the mixture of resources in the public domain with one's own work cannot morally justify the establishment of private property, at least in its Blackstonian form.<sup>54</sup> Rather, the moral imperative to treat the interests of prior and contemporary creators alike necessitates the harmonisation of rights to individual contributions within a management regime oriented towards the commons.

Accordingly, the critical normative theory of the intellectual commons raises concerns with regard to the treatment of joint intellectual creations under contemporary intellectual property laws. Such concerns are especially relevant today since the production of contemporary artistic works, scientific discoveries or technological breakthroughs revolves more and more around collaborative creativity and innovation by multitudes of workers joined together in industrial or commons-based modes of production.<sup>55</sup> In contrast to contemporary relations of production, today's doctrines of authorship act as social constructs, which obfuscate the collective character of contemporary intellectual production and tend to promote the concentration of exclusive intellectual property rights to single natural persons or legal entities as means to centralise control over the latter and facilitate their exchange in commodity markets.<sup>56</sup> Within the framework of the critical normative theory of the intellectual commons, disregard of the actual expenditure of individual efforts in joint intellectual works is considered morally wrong. In this context, collaborating creators ought to be able to invoke rights that appropriately pay tribute to the actuality of joint authorship in contemporary relations of intellectual production.

In reference to the interests of the community of producers, critical normative theory focuses on the moral evaluation of the collective and socialised character of the social relation of work. From a moral standpoint, the transformation of a commonly held resource through one's work justifies the entitlement of rights over the outcome of the mixture of the commons with work, on the condition that the worker's expedited effort makes the major part of the value of the novel object.<sup>57</sup> As already exhibited in previous chapters, any intellectual creation is inherently derivative and referential upon pre-existing knowledge. Furthermore, intellectual production is by its nature a practice of incremental, sequential and complementary advancement upon prior achievements, which in themselves are founded on the collective endeavour of science and the arts as a whole. For these reasons, individual contributions to intellectual production do not have sufficient moral standing compared to the immense wealth of the intellectual commons to qualify for the establishment of individual rights of absolute private enclosure upon intellectual works.

More importantly, intellectual production is an essentially socialised practice, in which individual contributions are, on the one hand, heavily influenced by prior and present knowledge and, on the other hand, intertwined through collaboration among multiple creators in an inseparable whole. Science, technology and culture develop in a process of sharing and collaboration between creative collectivities of both the past and the present, wherein the individual author/inventor dialectically receives influence from her social environment, from co-creators and from prior intellectual achievements and, at the same time, contributes to the dynamism of collective creativity and innovativeness. The advancement of arts and science as a whole can in itself be conceived of as a collective and collaborative social enterprise for the search of truth, beauty and social flourishing.<sup>58</sup> Any intellectual work is thus an amalgam of

individual and collective achievement, always reflecting the creative and innovative contribution of an individual author/inventor upon prior intellectual advancements. In addition, most contemporary intellectual works embody in one way or another the joint collaborative effort of multiple workers and derive their social value from the fact that they contribute to a wider knowledge field or cultural current. From this standpoint, the attribution of an intellectual expression or application in its entirety to single individuals or legal entities does not correspond to the actuality of the form of postmodern intellectual production and cannot be held to be morally acceptable. On the contrary, the allocation of rights and duties between the commoner and the collectivity needs to take seriously into account the ethical implications arising from the fundamentally social character of human creativity and innovation.

From the perspective of the common interest, the critical normative theory of the intellectual commons asserts that everyone ought to have equal privilege to access and use the public domain. Inspired by the Lockean 'no harm' proviso, it then argues that creators ought to be morally entitled to individual rights upon their work so long as there is 'enough and as good' left in common for others to practise their freedom of science and culture. Therefore, intangible resources belonging in the public domain, which are fundamental for the practice of creativity and inventiveness, need to remain absolutely open to access, use and transformation in common. Given that it favours an expanded notion of the right to participate in scientific progress and cultural life, critical normative theory also claims that the same regime ought to be enforced to any type of intellectual resource on the condition that its access and use are conducted for transformative non-commercial purposes.

Finally, the critical normative theory of the intellectual commons requires that intellectual resources be protected from under-use caused by acts of enclosure. Exclusive rights, which result in under-use, run counter to the common interest, because they injure others' privilege over the intellectual commons and breach the general moral requirement for their noble stewardship. According to John Locke, any loss of value due to under-use is incompatible with morality, since nothing has been created by God to be spoiled (Locke 1988, 291).<sup>59</sup> Despite their inherent characteristics of non-rivalry and non-subtractability, intangible resources can also be wasted. As pointed out in previous chapters, information, knowledge and culture acquire their social value through sharing and transformative use. Spoliation of intellectual works thus occurs each time that enclosure either prevents their wide dissemination or results in their under-use. In addition, spoliation also takes place whenever the social potential of intangible resources for the flourishing of arts and the progress of science is wasted. In contemporary context, the over-expansive scope and duration of intellectual property laws leads to significant wastage of the social value and potential of our intellectual commonwealth. Hence, there arises the need for an independent body of intellectual commons law to guarantee individual privileges of enjoyment over intangible resources and avert value spoliation.

From the perspective of the critical normative theory of the intellectual commons, work-related arguments follow an agent-centred line of thought to justify the protection of the public domain and the recognition of commons-oriented management regimes for intellectual resources. In this context, individual creators are held to bear rights upon intellectual works, which ought to be balanced with the interests of productive communities and society in general.

## 9.5. Value

The critical normative theory of the intellectual commons commences from a plural conception of social value in the context of the intellectual commons. In particular, social value is held to circulate within and beyond the communities of the intellectual commons in multiple forms of economic, social, cultural and political values.<sup>60</sup>

Commons-based value has moral significance. From generation to pooling and redistribution, intellectual commons communities produce and diffuse to society immense amounts of value, which supersede the economic form and have positive social outcomes in the aggregate. On the one hand, the institution of the public domain has overall positive social effects, by maximising net social benefits through open access to intellectual resources, especially those that constitute the infrastructure for scientific, technological and cultural progress. On the other hand, commons-based peer production exhibits impressive results in the contemporary framework of intellectual production. Overall, the intellectual commons produce social outcomes that promote ‘the greatest good of the greatest number’, by maximising the aggregate sum of individual benefits versus individual losses in the pursuit towards freedom, equality and democracy. From the perspective of rule consequentialism, the moral arguments in favour of the intellectual commons can be categorised according to their reference to access (‘consumption’), production and distribution, as displayed in the following table:

Perspective	Moral significance
Access (‘consumption’)	Static efficiency
	Dynamic efficiency
	Infrastructure as a commons
Production	Efficiency in production
	Quality in production
	Superiority of the mode of production
	Accommodation of multiple incentives
Distribution	Efficient allocation

**Table 9.3:** The moral significance of commons-based value.

Source: Author

Open access to intellectual resources is as a rule the most efficient mode of maximising the positive social impact of information, knowledge and culture from the perspectives of both static and dynamic efficiency. From the perspective of static efficiency, intellectual resources are public goods in the economic sense. This means that their social value is realised upon consumption. Owing to their public good character, the more widely information, knowledge and culture are shared the more people benefit and the more the social potential of intellectual goods is realised. As a result, from the standpoint of social utility, sharing ought to be the rule and exclusive rights the exception to the management of intangible resources. In addition, open access is the most efficient mode of maximising the social value of intellectual resources from the perspective of dynamic efficiency. Should intellectual resources be treated as a commons, i.e. open to access and subject to rules of pooling in common, the social potential of our intellectual commonwealth will be fully realised and the benefit derived therefrom will be maximised. Furthermore, wider rights of access and transformative use over intellectual resources tend to have positive effects on intellectual production. On the one hand, a wider interpretation of the fair use doctrine has the potential to promote technological innovation by permitting a greater spectrum of innovative uses over existing technologies. On the other hand, greater rights of access and transformative use have the potential to boost creativity and increase the quantity and quality of produced intellectual works. In this respect, the enactment of substantive copyright exceptions and limitations are expected to result in the production of more creative works. In general, the expansion of open access and transformative use tends to produce positive social externalities and spillover effects, which, though not recorded in the commodity market system, significantly contribute to technoscientific progress and the thriving of arts and culture.

In addition to the above, the social utility of the intellectual commons is supported by the 'infrastructure as a commons' argument. According to this argument, certain categories of intellectual resources are so central for the overall process of intellectual production that they ought to be subject to commons management. Due to the fact that these resources constitute the infrastructure for any type of creative or innovative activity, the social costs of their enclosure on the evolution of science, technology and culture outweigh the benefits of incentivising creators through the bestowal of exclusive rights upon them.<sup>61</sup> According to Frischmann, intellectual resources can be claimed to attain an 'infrastructural' character when they are primarily used as core input into downstream activities of intellectual production, especially non-market intellectual resources (Frischmann 2012, 61). Commons-based management of the intellectual infrastructure maximises net social benefit, since any fetters of enclosure at this level tend to have amplifying cascade effects on lower levels of production. The scope of the intellectual infrastructure essentially applies to all categories of intangible resources, which constitute core raw materials for

creativity and innovation, such as data, information, discoveries, scientific theories, ideas, procedures, standards, methods of operation, mathematical concepts, schemes and rules. Yet, infrastructure is a socially constructed institution that only partly relies on the inherent characteristics of resources. From the perspective of consequentialist ethics, infrastructure ought to be considered all those categories of resources and types of access and use that, when commonified, generate positive externalities of social value greater than their market exchange value when they remain enclosed. This includes strategic resources in each economic sector, the ownership of which creates high barriers to entry for newcomers and tends to lead to market oligopolies or monopolies. Infrastructure is today regulated as a commons in a number of network industries worldwide, such as the energy and electronic communications sectors. From a consequentialist perspective, this ought to be expanded to the intellectual infrastructure of knowledge-based industries.

Apart from the net social benefit of access and transformative use, the critical normative theory of the intellectual commons takes seriously into account the social utility of commons-based peer production on the grounds of its efficiency in the most advanced sectors of the networked information economy. Nowadays, the social diffusion and prominence of commons-based practices in our societies is related to contemporary relations of intellectual production. The economics of improvement in the highly complex environment of today's science and technology reveal that innovation is more than ever based on building upon preceding achievements, by complementing technology already available with novel breakthroughs. Contemporary relations of intellectual production also leverage the aspects of sharing and collaboration to centre stage. Decentralised peer-to-peer modes of work management emerge on the basis of collective empowerment and participation in task allocation and decision-making. Technological advancements and the decentralisation of the means of production further provide the basis for interactive asynchronous many-to-many sharing and collaboration among peers. The foregoing technosocial changes construct intellectual commons that create 'large-scale, effective systems for the provisioning of goods, services and resources' (Benkler 2004, 276). In this context, the mode of commons-based peer production dynamically penetrates and transforms the value-producing processes of the dominant capitalist mode of intellectual production. The critical normative theory of the intellectual commons thus claims that commons-based peer production is ideally equipped with the capacity to unleash the potential of the social intellect in the digital era. It therefore calls for the enactment of the appropriate institutional framework for the promotion of commons-based peer production in all cases that its application has positive social outcomes.

From the perspective of intellectual production, commons-based practices are also held to enhance the quality of the productive output and, thus, benefit society. The open mode of intellectual production has the capacity to pool

together individual skills, capabilities and effort in a collective worker, who produces in unity. In contrast to closed models, the collaborative combination of multiple minds is thus capable of generating intellectual works of higher complexity with fewer flaws and better properties. Twenty years after Eric Raymond's statement that, 'given enough eyeballs, all bugs are shallow' (Raymond 1999, 30), the superior quality of free and open source over enclosed software programs has led to the former dominating the critical infrastructure of our information society. Since then, similar modes of production open to voluntary contribution have spread in most fields of creative activity, with impressive results, such as in open modes of design, hardware, systems, standards, data, digital content, publishing, journals, science, engineering and medicine.

In comparison to capital and commodity markets, commons-based peer production also arises in its unity as a superior social mode of production of intellectual resources. Commodity market allocation presupposes the transformation of intellectual resources into well-delineated units with strictly determined boundaries capable of being circulated through private contracts among market players. The social construct of parcelling intellectual resources into commodities disregards their essentially relational and referential character. Obstructing the establishment of potential links between intellectual resources by means of private enclosure inevitably hinders the production of new information, knowledge and culture and functions as a fetter to collaboration among multiple intellectual workers. As a result, commodity market allocation has a negative impact on the overall process of intellectual production. Instead, creativity and inventiveness are inherently socialised practices ignited by the common work of multiple minds and pollinated by prior intellectual achievements. Commons-based peer production is compatible with the incremental, sequential, relational and referential nature of the creative practice. The freedom of access and transformative use dominating the intellectual commons removes the fetters over production and, thus, unleashes the creative potential of commoners. Taking the latter into account, the critical theory of the intellectual commons holds that commons-based peer production is superior to the capitalist mode of intellectual production, regardless of whether the latter is driven by the state or commodity markets, since it has the capacity to make faster and more important breakthroughs at the cutting edge of contemporary science and technology.

The beneficial effect of commons-based peer production is evident not only in production but also at the stage of the allocation of intangible resources. Creativity and inventiveness are resources widely dispersed across members of society. In the wider social context, in which commodity markets function as the primal institutions defining the distribution of resources, allocation is determined by monetary capacity. From the perspective of efficiency, more often than not the capability to create does not correspond to monetary capacity. In societies with unequal opportunities, such as ours, those with the capacity

to innovate will in most cases lack the monetary resources to realise their ideas. By contrast, in the intellectual commons prior information, knowledge and culture are openly accessible and free for transformative use by all. Hence, allocated resources inevitably reach individual creators or teams of creators who are most capable of achieving the greatest breakthroughs for the common good.

In addition to the foregoing arguments, the critical normative theory of the intellectual commons generally questions the utilitarian presupposition underlying intellectual property law, according to which the stimulation of creativity and inventiveness is solely dependent on monetary incentives. Instead, it counter-proposes a multiple-incentive approach to creative practice, in which non-monetary incentives ought to be equally embraced and promoted by legal institutions owing to their contribution to the common good. In practice, artists and inventors are usually spurred by a multiplicity of non-monetary social rewards, which in certain contexts may also prevail over money and profit. As demonstrated in Chapters 5–8 of this book, the intellectual commons are based on alternative value practices that are dominated by non-market values and incentivise individuals alternatively and in parallel to the value system of the commodity market in most, if not all, formations of intellectual production, distribution and consumption. In this context, critical normative theory takes seriously into account the existence of these values in its felicific calculus and emphasises their beneficial effect for the flourishing of arts, science and technology. On the grounds of their net social benefit, such an ethical approach calls for the institutionalisation of alternative reward systems through law, which will accommodate and promote such value practices for the greater good.

In conclusion, from the perspective of social utility, the critical normative theory of the intellectual commons raises consequentialist arguments on the grounds of the net social benefit of the intellectual commons to justify their promotion for the common good. In this context, it provides the philosophical basis for the proactive institutionalisation of a vibrant non-commercial zone of creativity and innovation as a means to achieve the flourishing of art, science and technology and spur economic growth at a faster pace than proprietary models of intellectual production, distribution and consumption.

## 9.6. Community

According to critical normative theory, the commons of the information age lift the traditional form of the human community to a superior level. In contrast to the closed and hierarchical communities of the past, contemporary communities within the framework of the intellectual commons are open, participatory and cosmopolitan, combining in a dialectical way the element of face-to-face relations of intimacy with the element of decentralisation across space and time through the use of information and communication technologies.

Through the productive process intellectual commons communities both produce intangible resources and, at the same time, reproduce themselves and evolve through time into novel forms of community through their dialectic with capital and commodity markets. In its wider sense, communal reproduction also involves the multiplication of intellectual commons communities and the diffusion of commons-oriented social relations in society. In this context, the community of the intellectual commons tends to display elements and characteristics that have moral substance from the standpoint of deontological ethics. Such elements can be approached from the perspectives exhibited in the table below:

Perspective	Moral significance
Resilience	Counter-enclosure
	Counter-domination
Freedom	Collective empowerment
Equality	Social justice
	Fairness
Democracy	Freedom of expression
	Democratisation of intellectual production

**Table 9.4:** The moral significance of the intellectual commons community.  
*Source: Author*

The intellectual commons community is founded on the principle of knowledge sharing among its members. Consequently, the communities of the intellectual commons put any regimes of enclosure into question by virtue of both their constitutional rules and everyday practice. In the context of the intellectual commons, the enclosure of intangible resources is disputed on moral grounds. According to this moral stance, some things ought not to be absolute property and knowledge is one of them.<sup>62</sup> Throughout most of human history, the products of the intellect were treated as common to all and any assertion of private property upon them was considered absurd and morally condemnable.<sup>63</sup> In contemporary societies, which are fraught with the ever-expansive commodification of intangible resources, intellectual commons communities represent the social movement against enclosure, by practising the non-commodifiability of certain categories of resources.<sup>64</sup> Borrowing the words of Karl Marx, commoners act not as owners but as possessors and usufructuaries of intellectual resources, ‘and like boni patres familias, they must hand [them] down to succeeding generations in an improved condition’ (Marx 1992, 776). Furthermore, commonly pooled resources are subject to regimes of communal proprietorship or ownership and based on contractually enacted rights of use. In contrast to absolute property, they take the form of bundles of legal rights upon intellectual resources, which embody rules of open access,

non-excludability, protection from state or private ownership, governance in a decentralised or communal manner and limited sovereignty.<sup>65</sup> Commons-based practices are generally motivated by the moral argument that freedom to access and use intellectual resources should be the general principle for the governance of creativity and innovation. Accordingly, legal regimes of qualified property in the form of intellectual property rights ought to be the exception and only in morally justified cases.<sup>66</sup> Communal relations within the intellectual commons, therefore, constitute a fundamental shift in the institution of property from exclusive ownership to inclusive stewardship and trusteeship of intangible resources.

Furthermore, the critical normative theory of the intellectual commons asserts that property over intellectual resources is immoral owing to its deep impact on power relations in society. According to this perspective, the institution of intellectual property constructs an asymmetric power relation between owners and non-owners of intangible resources. In particular, intellectual property rights are conceived as privileges designated by the state to private entities, which bestow exclusive decision-making power over the use of a wide spectrum of intellectual resources. The enclosure of the commons of the intellect is not without social repercussions. Exclusive rights not only grant control but also demarcate the framework and the opportunities of others to exercise the freedom of science and culture and the freedom to receive and impart information. In particular, property on intellectual resources confers control over the limits of creativity and innovation of other persons. Furthermore, private enclosures imposed on the raw materials of expression frame the public sphere on the basis of criteria extrinsic or even hostile to the common interest. Hence, from being an institution for the control over intangible resources, intellectual property is transformed into an idiosyncratic tool of control over persons and communities in terrains of activity crucial for social autonomy.<sup>67</sup> In line with the foregoing, the critical normative theory of the intellectual commons critiques the aspect of domination inherent in intellectual property from the standpoint of collective empowerment and democracy. As an alternative, it holds the enactment of commons-oriented rights of access, sharing, transformative use and pooling in common over intellectual resources as morally justified means to reduce private powers of exclusion and to unleash the freedom of creativity and innovation for all in the digital age.

Notwithstanding the critique of domination, critical normative theory also supports the moral viewpoint that the intellectual commons constitute an integral element of collective empowerment in contemporary societies and should, therefore, be institutionally promoted. First of all, the intellectual commons and their supportive social institutions, such as schools and libraries, provide the essential infrastructure for the education of the general population. In a democratic society, the social dissemination of knowledge for educational purposes is morally justified on the grounds that it constitutes the main prerequisite for individual and collective empowerment. On the other hand,

robust and thriving intellectual commons also broaden the spectrum of resources and types of uses available for the intellectual advancement of the population as a whole.<sup>68</sup> Apart from provisioning the raw materials for education, the freedom embodied in the intellectual commons is also crucial for human flourishing. The advanced level of sharing and collaboration encountered in communities renders creativity and innovativeness in the intellectual commons an exercise of inherently collective development and self-determination. In particular, the increased degree of participation in the creative environment of the intellectual commons provides the organisational basis for the production of a more self-reflective and critical science and culture. Hence, the decentralised organisation of commons-based peer production contributes to the pursuit of 'a more genuinely participatory political system, a critical culture, and social justice' (Benkler 2006, 8). In addition, practices of commoning in the fields of science, technology, art and culture constitute as such an important political expression of collective empowerment in contemporary societies, which ought to be promoted as an end in itself.<sup>69</sup> Practices of commoning, therefore, fully embrace the freedom of collectivities 'to develop and express their humanity, their world view and the meanings they give to their existence and their development through, inter alia, values, beliefs, languages, knowledge and the arts, and ways of life.'<sup>70</sup> Taking the above into account, the critical normative theory of the intellectual commons justifies the morality of commons-oriented legal institutions on the grounds of the inherent value of communal relations of sharing and collaboration thriving in the intellectual commons and the essential role that such relations play in the collective empowerment of social groups and communities.

Of equal importance to collective empowerment is the relation of the intellectual commons with social justice and the inclusiveness of vulnerable social groups. According to the egalitarian justification of the intellectual commons, by empowering the right of everyone to science and culture on an equal footing, the open access commons of the human intellect play a crucial role in the elimination of all forms of social discrimination based on wealth, social status, position in social reproduction, gender, race, colour, cultural identity, belief or sexual orientation. In a democratic society, intellectual goods are considered to be properly distributed in a moral sense when they are disseminated on the basis of equality or according to one's needs, rather than on the basis of commodity market allocation. Equal opportunities for all to access the intellectual commonwealth of humanity is fundamental for critical thinking, individual empowerment, social justice, civic engagement and democracy. For this reason, democratic societies are generally prone to sustaining public institutions, which guarantee minimal levels of education and access to knowledge for the general population. In parallel, the open access institutions of the intellectual commons tend to remove socially constructed restrictions to access intangible resources and to facilitate the exercise of the fundamental right of everyone to take part in scientific development and cultural life through communal

practices of participatory co-creation. In the spheres of the commons, the term 'everyone' acquires its true meaning by including 'women as well as men, children as well as adults, popular classes as well as elites, rural dwellers as well as urbanites, the poor as well as the wealthy, and amateurs as well as professionals' (Shaver and Sganga 2009, 646–647). As in every other regime of generalised reciprocity, production and allocation in the intellectual commons takes place from each according to his abilities, to each according to his needs (Marx 1970). As a result, the intellectual commons create the conditions that allow all people to access, participate in and contribute to science and culture without discrimination and on an equal footing.

On the other hand, the critical normative theory of the intellectual commons disqualifies the morality of commodity markets as primal mechanisms for the allocation of intangible resources on the grounds of their incompatibility with the principle of fairness. In this context, Yochai Benkler comments that '[i]n the presence of extreme distribution differences like those that characterize the global economy, the market is a poor measure of comparative welfare. A system that signals what innovations are most desirable and rations access to these innovations based on ability, as well as willingness, to pay, over-represents welfare gains of the wealthy and under-represents welfare gains of the poor' (Benkler 2006, 303). Along these lines, the three moral principles of the Rawlsian conception of justice as fairness are helpful in evaluating the relation of intellectual property-enabled commodity markets with social justice. First of all, the Rawlsian moral construct raises the imperative that 'each person has an equal claim to a fully adequate scheme of equal basic rights and liberties' (Rawls 2005, 5). Furthermore, social and economic inequalities are according to John Rawls morally acceptable, when 'they are both a) reasonably expected to be to everyone's advantage, and b) attached to positions and offices open to all' (Rawls 2009, 53). Interpreted in the context of creativity and inventiveness, the first basic liberties principle of Rawlsian moral theory dictates the universal equal access to infrastructural intangible resources. The second difference principle prescribes that inequalities in the treatment of the right of all to science and culture are permitted only when they benefit the worst off. Finally, the third equality of opportunity principle requires that individuals ought to enjoy an effective equality of opportunities in exercising the right to science and culture. Contrary to the regimes of the intellectual commons, commodity markets are by definition not appropriately modelled to grant access to all to those intangible resources, which are of an infrastructural nature and are, thus, essential for the meaningful exercise of the right of everyone to science and culture.<sup>71</sup> In addition, the commodification of information, knowledge and culture brought about by over-expansive intellectual property laws has given rise to significant barriers to participatory modes of creativity and innovation, thus encroaching upon the fundamental freedom to take part in scientific progress and cultural life. Overall, in our hierarchical and stratified societies, commodity markets inevitably fail to allocate access and use rights to intangible resources according

to the moral imperatives of fairness. Hence, the critical normative theory grounds the morality of commons-oriented legal regimes on the basis that the intellectual commons construct more fair and inclusive environments for creativity and innovation than intellectual property-enabled commodity markets.

Collective empowerment, social justice and democracy are interdependent and mutually reinforcing.<sup>72</sup> The empowering and egalitarian characteristics of the intellectual commons have a positive effect on freedom of expression, the development of critical perspectives to science and culture, cultural diversity, meaningful citizenship and, as a corollary, the quality of democratic institutions. First of all, freedom of speech presupposes a public sphere with an extensive public domain of informational, communicational, scientific and cultural resources.<sup>73</sup> The public domain is a legal institution representing the scope of uses of intellectual works that do not necessitate the prior acquisition of the permission of right-holders. Hence, resources in the public domain are openly available to the public without restriction and everyone is equally privileged to use them in expressing him- or herself. In juxtaposition to the public domain, intellectual property law establishes exclusive rights on speech. Since they correspondingly decrease the scope of the public domain, the extensive reach of contemporary private enclosures upon intangible resources may have a chilling effect on free speech. In democratic societies, copyright has been structured as a semi-commons institution in order to internally resolve the tension between exclusive rights and the freedom of expression. In this context, the doctrine of the idea/expression dichotomy is dedicated to preserving a common pool of ideas, which remain free to access, and the generation of creative expressions. Furthermore, exceptions of fair use grant immunity to unlicensed forms of expression, which involve socially desirable uses of protected works related to the freedom of speech. Resolving the tension within the system of intellectual property law, however, tilts the balance in favour of exclusion rather than freedom. First of all, freedom-enabling copyright doctrines lie within the system of copyright law and are not co-extensive with the protection of the fundamental right to free speech granted in international human rights treaties. Secondly, within the framework of intellectual property, such doctrines are structured as exceptions to the basic principle of exclusion and are only invoked under very restrictive conditions, which end up subsuming the freedom of expression of all to the private economic interests of the right-holder. As a result, in the majority of real-life cases in which they collide, the exclusive control that intellectual property confers over intangible resources trumps the fundamental right to free speech. On the other hand, there is a fundamental connection of the intellectual commons with freedom of expression and the construction of a vibrant democratic public sphere. By giving substance to the right to take part in science and culture under conditions of equipotency, the communities of the intellectual commons are in themselves an important collective form of free speech that ought to be accommodated and promoted by the law. In addition, these communities tend to revitalise the public domain by expanding its

contours and leveraging its quality with newly produced and virally growing constellations of information, knowledge and culture. Viewed from the prism of the intellectual commons, the traditional negative definition of the public domain as a 'wasteland of undeserving detritus' (Samuelson 2003, 147–161) is superseded by the reconception of the commonwealth of the human intellect as the rule to the exception of private enclosures over intangible resources (De Rosnay and De Martin 2012, xv).<sup>74</sup> From such a perspective, the critical normative theory of the intellectual commons ethically requires a user-rights approach to the governance of the tension between intellectual property and freedom of speech. According to this approach, permissible uses of free speech under copyright law ought to be articulated and treated as rights. Accordingly, any tensions between intellectual property rights and the fundamental right to free speech ought to be resolved in *dubio pro libertate*, i.e. in favour of freedom, on the moral grounds that intellectual property rights are the exceptions to the major principle of the freedom of use (Geiger 2017). As a corollary, the reversal and replacement of the rule of exclusivity by the rule of freedom, which characterises the critical normative theory of the intellectual commons, purports to guarantee and safeguard the institution of the public domain as a common space of free speech within a participatory and democratic public sphere.

Taking into account their connection with free speech, intellectual commons can also be claimed to cultivate critical and diverse scientific, technological and cultural environments. According to article 2 § 1 of the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions, '[c]ultural diversity can be protected and promoted only if human rights and fundamental freedoms, such as freedom of expression, information and communication, as well as the ability of individuals to choose cultural expressions, are guaranteed'.<sup>75</sup> The wide diffusion of the means of intellectual production in societies constitutes an environment of open and equipotential opportunities of participation to science and culture for individuals and communities and, eventually, makes possible decentralised forms of scientific discourse and the growth of cultural diversity. The objective conditions for the rise of the intellectual commons are enjoined with the creative force of the social intellect, which is manifested in the mass intellectuality of commoners both within and beyond the workplace. The participatory and communal aspects of the intellectual commons encourage individuals and social groups to create, innovate, collaborate, share and disseminate their own intellectual achievements and facilitate access to the intellectual achievements of others. These characteristics of commons-based peer production give rise to collaborative innovation and a novel folk culture in the networked information economy and render science, technology and art more transparent, critical and self-reflective. Commons-based peer production thus has a democratising effect on the organisation of intellectual production and the content of science, technology and culture. Through increased participation in the process of contributing to scientific progress and making cultural meaning in the communities of the intellectual commons, citizens are

transformed from passive receivers of centrally manufactured intangible commodities into co-shapers of the social world they inhabit. Furthermore, to the extent that such communities take control of aspects of intellectual production, there is a power shift from the state and corporations to modes of decentralised decision-making regarding the evolution of our scientific and cultural environments. Even though they are not tautological with democracy nor do they automatically lead to more democratic polities, the intellectual commons constitute spaces and vehicles for the democratisation of science, technology and culture in contemporary societies. The critical normative theory of the intellectual commons justifies the morality of commons-oriented institutions and policies on the grounds of the link between the intellectual commons and democracy. From such a standpoint, the aspects of participation, creative pluralism, critical discourse and self-governance, which generally characterise commons-based peer production, are held to democratise facets of economic and political power in our societies. For all these reasons and drawing from the inherent moral value of the democratic ideal, the critical normative theory of the intellectual commons advocates the institution of an independent body of intellectual commons law with the purpose of unleashing the democratising potential of the intellectual commons.

### 9.7. Basic Elements of an Intellectual Commons Law

The ethical and political considerations exhibited in this chapter justify the enactment of an independent body of law for the protection and promotion of the intellectual commons. The cornerstone for the legislation of an intellectual commons law is the human right of everyone to take part in science and culture. Its full realisation requires detailed statutory provisions for the interrelation of the freedom of science and culture with individual authors' rights on an equal footing.

A law for the intellectual commons needs to be based on independent legal principles, as a means to acquire independence from the system of intellectual property law. The formulation of its principles should benefit from existing proposals for the reform of intellectual property law. Such proposals mainly focus on copyright exceptions and limitations. In the quest for a more equitable balance between the freedom of science and culture and private enclosures, scholars and policymakers have often called for their flexibility (indicatively Hugenholtz and Senftleben 2011; Samuelson 2017) or for the expansion of their scope and subject matter (indicatively Von Lohmann 2008; Hargreaves 2011). In this respect, an independent body of law for the intellectual commons should embody principles of law that will effectively delineate its contours from the system of intellectual property law and create a new pro-commons system of statutory rules. In this new system of law, the freedom of non-commercial

creativity and innovation shall be the rule, thus trumping any types of enclosure upon intangible resources, and its encroachment by exclusive rights shall be the exception, applicable only in cases justified by ethical considerations and empirical evidence.

In addition, intellectual property reform proponents stress the need of protecting the public domain (Lange 1981; Litman 1990; Benkler 1999; Boyle 2003). In this context, access to the public domain is viewed as crucial for the independent creation of intellectual works by members of the public. Yet, several scholars point out the lack of an explicit recognition and protection of the public domain under the law (Cahir 2007; Dusollier 2011; De Rosnay and De Martin 2012). In the context of an intellectual commons law, the public domain will need to acquire a positive legal status through its affirmative recognition by statute. Furthermore, public domain material will have to be converted by law from its current state of *res nullius* imposed by intellectual property law into the legal status of *res communis omnium*, i.e. used by all but appropriated by none. Finally, the scope of the public domain will need to be expanded, in order to accommodate and protect all categories of intangible resources, which have an infrastructural role in intellectual production.

Furthermore, certain scholars and interest groups propose a user-rights approach to intellectual property law reform. In particular, it has been asserted that access to knowledge needs to be protected and promoted by the law, because it leverages economic development and social cohesion (International Federation of Library Associations and Institutions and Technology and Social Change Group 2017, 2019). Accordingly, a number of scholars have called for the recognition of rights of non-commercial access and use of protected works within the system of copyright law (Cotter 2010; Voorhoof 2015; Koren 2017; Geiger 2018). According to the normative perspective taken in this study, legal rules for the regulation of commercial and non-commercial use of intangible resources should differ for ethical and political reasons. In relation to commercial use, it should be noted that property interests emerge as a result of resource scarcity. Given that intangible resources are essentially abundant, exclusive rights are mainly granted to forbid free-riders from economically exploiting protected intellectual works. Yet, this justification holds no water in relation to the non-commercial use of intellectual works, the economic value of which takes the form of use value, not exchange value. Within the framework of an intellectual commons law, affirmative rights of non-commercial access and transformative use of pre-existing intangible goods will need to be recognised for the exercise of everyone's creativity and innovation. Hence, the interrelation between intellectual property and intellectual commons law will be clearly demarcated, with the former regulating commodity markets of intangible goods and the latter establishing a non-commercial sphere of unleashed social creativity and innovation, which will also have beneficial spillover effects to commodity markets.

Given the foregoing, an independent body of law for the intellectual commons can be based on the following principles of law:

- The principle of the freedom of non-commercial creativity and innovation, according to which any types of transformative use of intangible resources ought not to be restricted on the condition that they remain non-commodifiable.
- The principle of the exceptional nature of exclusivity, according to which exclusive rights upon intangible resources ought to be granted by the state only when and up to the extent that such rights are justified, backed up by empirically sound evidence produced through independent and impartial impact assessments. In compliance with this principle, intellectual works considered fundamental for creativity and innovation will have to be placed by default in the public domain.
- The principle of the lawfulness of exclusivity, according to which exclusive rights upon intellectual works ought to be conferred only for the purpose of providing sufficient remuneration to creators and producers, so as to promote the progress of science and the wide circulation of information and ideas. Protection that goes further and is incompatible with this purpose should be deemed illegitimate and should not be granted.
- The principle of the proportionality of exclusivity, according to which exclusive rights upon intellectual works ought to be protected only insofar as this protection is adequate, relevant and necessary in relation to the purpose for which they are protected.
- The principle of the temporality of exclusivity, according to which the duration of exclusive rights ought to be determined in accordance with the type of the relevant intellectual work and the purposes of their protection. Thus, works should not be protected longer than is necessary for the purpose for which they are protected.

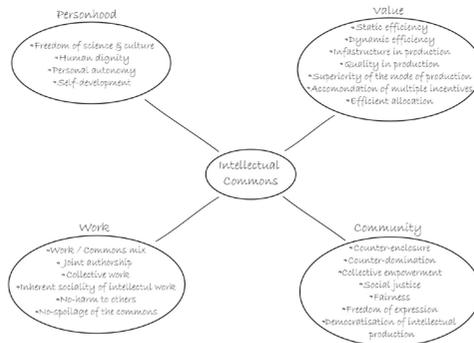
Furthermore, such a body of law ought to have the following core elements:

- The reconstitution of the freedom to take part in science and culture as the rule to the exception of private rights of exclusivity upon intellectual works.
- The introduction of sets of extensive rights to access, work upon and transform information, knowledge and culture for non-commercial purposes.
- The reconstitution of the public domain as a positive common space of sharing, collaboration, innovation, and freedom of expression through proactive laws and policies for its protection and promotion.
- The expansion of the public domain to cover all types of infrastructural intangible resources and social uses that are important for intellectual production, social justice and democracy.

## 9.8. Conclusion

Dominant normative perspectives of intellectual production, distribution and consumption are generally oriented towards the justification of property. As a result, such perspectives remain confined within the framework of intellectual property law and, thus, fail to provide adequate ethical grounds for legal institutions enabling commons-based practices of knowledge sharing and collaborative creativity and innovation. This failure necessitates the establishment of an alternative normative approach oriented towards the intellectual commons.

By benefiting from the arguments of the previous chapters of the study, the current chapter has aimed to provide a normative model for the moral justification of the intellectual commons as a social totality. This model has unfolded at three levels. At the first level, it has focused on the fundamental ontological elements of the intellectual commons, i.e. the elements of personhood, work, value and community. At the second level, it has examined the morally significant characteristics of each of the foregoing elements. At the third level, the ethical arguments of the model have provided the moral grounds for a distinct and independent body of law for the protection and promotion of the intellectual commons beyond the inherent limitations of intellectual property law. A summary of this model is displayed in the below figure.



**Figure 9.2:** A normative model for the intellectual commons.

Source: Author

As a corollary, the ethical considerations exhibited in this chapter outline the contours of a law for the intellectual commons.