## Making Copyright Fit for the Digital Agenda\*

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§ 1. What Are We Talking About? As it often happens, the title of my presentation has an ambiguous ring to it. Are we trying to figure out which set of specific changes in copyright legislation would help achieving the targets set by the specific policy document released by the EU Commission last year<sup>1</sup> or are we supposed to deal with a broad new vision of the role of copyright intended to foster the generation and dissemination of creativity in the new digital environment? Are we talking about EU Directives or of Berne Convention; about short term or medium term?

Well, perhaps the two dimensions, different as they are, may go hand in hand. It stands to reason that a few ideas about the future – what could and indeed should happen in the next five or ten years or so – may also help us in transacting the business of today and of tomorrow. So let me start from the broader picture and come back to questions of more immediate concern in the final remarks.<sup>2</sup>

§ 2. Creators and their Public: from the Long Route to the Short Route. The case is often made that copyright, as we have known it for three centuries, which after all is a brief parenthesis in the *longue durée* of the millennial history of information technology, may no longer be an appropriate tool for the needs of creators and society in a digital environment.

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<sup>&</sup>lt;sup>1</sup> EUROPEAN COMMISSION, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions *A Digital Agenda for Europe*, Brussels, 19.05.2010 Com (2010) 245

<sup>&</sup>lt;sup>2</sup> In sketching out the broader picture, I draw on the final section of my paper *Copyright Policies for Digital Libraries in the Context of the i2010 Strategy*, presented at the 1st COMMUNIA Conference, Louvain-la-Neuve, Belgium (July 1, 2008), *available at* <a href="http://www.communia-project.eu/node/110.">http://www.communia-project.eu/node/110.</a>

What is the basis for this – arguably bold; but also quite widespread  $-^3$  argument? The reply is quite straightforward: in the last two decades or so, the social and technological basis of creation has been radically transformed.

The time has come for us to finally become aware that in our post-post-industrial age, the long route which used to lead the work from its creator to the public by passing through different categories of businesses is gradually being replaced by a short route, which puts in direct contact creators and the public. This development may be sketched as follows.<sup>4</sup>

2.1. In the analogue word, direct access to the market by creators was confined to a very limited number of very special cases.<sup>5</sup> Otherwise, it could be taken for granted that the intermediation of business was necessary to bring works from creators to markets. In particular, books and records needed to be printed. For this purpose some kind of "factory" was required, to manufacture what in effect were fixed, stable, material or – as the expression now goes – "hard" copies of the work. In turn these hard copies needed to be stored, transported, distributed, before reaching the shelves where the public would finally find them.

It was difficult for creators to engage in all these steps; and this is why, as a rule, they preferred to resort to businesses to set up the characteristic trilateral relationship between creator, business and the public, which is typical of primary exploitation of copyrighted works. The kind of business which appeared indispensable for this purpose had features which the last two centuries made familiar. To begin with, it had to make substantial outlays to figure out whether there was a market for the work; then again it had to invest and take large risks for the mass production of material copies of works and for their distribution; and this on a scale which increased in step with the extension of the markets. Publishers, Hollywood and the record labels

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<sup>&</sup>lt;sup>3</sup> See L. Lessig, Remix. Making Art and Commerce Thrive in the Hybrid Economy, The Penguin Press, 2008; V. Grassmuck, The World is Going Flat(-Rate): A Study Showing Copyright Exception for Legalizing File-Sharing Feasible as a Cease-Fire in the "War on Copyright" Emerges, in Intellectual Property Watch, May 11, 2009, <a href="http://www.ip--watch.org/weblog/2009/05/11/the-world-is-going-flat-rate">http://www.ip--watch.org/weblog/2009/05/11/the-world-is-going-flat-rate</a>; Ph. AIGRAIN, Internet & Création: Comment Reconnaître les Échanges sur Internet en Finançant la Création, Éditions InLibroVeritas, 2008; Y. BENKLER, Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production', in 114 Yale L.J., 2004, 272 ff. A very open minded approach is also advocated by the speech made by WIPO's Director General F. Gurry, The Future of Copyright, Sydney, February 25, 2011, available at <a href="http://www.wipo.int/about-wipo/en/dgo/speeches/dg\_blueskyconf\_11.html">http://www.wipo.int/about-wipo/en/dgo/speeches/dg\_blueskyconf\_11.html</a>, last visited March 2, 2011. A theoretical framework to the re-orientation of the assessment of the rules concerning information products is arguably provided by the literature devoted to common pools resources and more specifically to its extension to knowledge and information commons: see in this connection C. Hess-E. Ostrom, Introduction: An Overview of the Knowledge Commons, in C. Hess-E. Ostrom (eds.), Understanding Knowledge as a Commons. From Theory to Practice, MIT Press, Cambridge-London, 2007, 3 ff.

<sup>&</sup>lt;sup>4</sup> For additional references *see* my *Individual and collective management of copyright in a digital environment*, in Paul Torremans (ed.), *Copyright Law. A Handbook of Contemporary Research*, Edward Elgar, 2008, 282 ff. at 285 ff. and 308 ff.

<sup>&</sup>lt;sup>5</sup> Such as the bohemian painter personally seeking out patrons to sell his paintings or the wandering gipsy carrying around his violin.

<sup>&</sup>lt;sup>6</sup> See in this connection W.R. CORNISH, Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights, London, Sweet & Maxwell, 1996, 401.

are appropriate cases in point. Radio and TV came in to take care of so called "secondary" utilization of work.

In all these regards, it certainly can be said that this was a quite long route to institute a contact between the creator and the public; and that business was a very valuable, indeed indispensible intermediary to achieve such a goal.

2.2. In the digital environment all this dramatically changes. On the production side, perfect digital copies make "factories" of physical, material copies of works redundant, at least in principle. What is specially remarkable is that this same development is now reaching the movie industry. Until recently this sector of the entertainment business appeared to be the last bulwark in which capital intensive business could be considered really indispensable. But this is becoming less and less true as each day passes. Jean Cocteau predicted that the tools required for the creation of a movie would at some point in time become as cheap as paper and pencil; and digital technology may still prove his vision right. 8

On the distribution side a similar – possibly less visible, but certainly even more striking – process is taking place. This is so because digital goods which are distributed through the net are light rather than heavy, and use up a limited amount of storage space. But even more so because the technological endowment held by the public at the receiving end has in the meantime deeply changed. Even in the past the end user had to make an investment of sorts in technology, by purchasing a radio or a TV set, a record player or a tape recorder. The novel feature is that since the beginning of the digital age the scale of a minimum unit of the technological endowment at the receiving end – e.g. the memory of a PC – has started to be largely in excess of the average needs of the consumer; and as a rule each unit is interoperable with all the others. A similar analysis can be reiterated in connection with file-sharing. Whatever legal assessment we may pass of this practice, its ultimate technological ramifications cannot be revoked in doubt. Here we have enormous excess capacity residing with the public at large at the receiving end; and this excess capacity can be mobilized to create distributive networks of extraordinary scale, scope and effectiveness.

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<sup>&</sup>lt;sup>7</sup> It may be argued that this is true only for additional copies, the ones which can be costlessly multiplied after what we could call the initial embodiment, the prototype or the "master" has been first created; and to this it may added that for the latter the required investment still is huge. This objection has indeed been raised a number of times [e.g. by P. AUTERI, *Diritti d'autore, nuove tecnologie e* Digital Rights Management, in (M.L. Montagnani, M. Borghi eds.) *Proprietà digitale: diritti d'autore, nuove tecnologie e* Digital Rights Management, Egea, Milano, 2006, 23 ff.]; but the case becomes less and less defensible as the time passes. The role of software and of digital technology in the creation and initial fixation of music is increasing all the time; and their cost is decreasing in parallel.

<sup>&</sup>lt;sup>8</sup> For starters *see* on Open Source Cinema http://en.wikipedia.org/wiki/Open Source Cinema.

<sup>&</sup>lt;sup>9</sup> As noted by Y. BENKLER, *Sharing Nicely*, above at note 3, 277.

<sup>&</sup>lt;sup>10</sup> As indeed aptly described by the decision of the US Supreme Court of 27 June 2005, Metro-Goldwin-Mayer Studios Inc. et al. v. Grockster, Ltd. et al., 125 S. Ct. 2764 (2005). On the potential for distribution offered by open spectrum access *see* L. LESSIG, *The Future of Ideas. The Fate of Commons in a Connected World*, New York, Vintage Books, Random House, 2001, 78 ff., 218 ss., 240.

2.3. In this novel context, it would seem that the setting up of a relationship between creator and business no longer has the same compelling rationale it used to have in the past. Digital copies are (nearly) perfect; and can be duplicated at no cost at the receiving end. Therefore, in a number of situations both the "factory" and the physical distribution chain are no longer indispensable. It appears therefore that creators can more and more often access markets without engaging in the trilateral relationship which used to be characteristic of dealings in copyright. Indeed, these technological determinants enable creators to make works directly available to the public. It is even more remarkable that an increasingly large number of members of the public itself are in turn grabbing the opportunity offered by the technology available at the receiving end and transform themselves into producers and distributors of works.

To make a long story short: both the production and distribution functions migrate from business to the public and there they can rely on excess resources available at each consumption unit. These, if individually of small scale, may be multiplied by very large numbers to provide almost infinite manufacturing and distribution capacity in a way that dwarfs past industry investments and makes them to a large extent redundant.<sup>12</sup>

The stage scenario is indeed changing. Social sharing enters; business recedes. As a result, the long route from creators to the public may at some point become much shorter; and this is happening more and more all the time. Today creators set up their own sites and make books and music directly accessible to the public therefrom. Currently, user generated content and social networks are growing exponentially: 14 creators and public are finally merging into each other.

§ 3. The Three Requirements for a Legislative Agenda for the Digital Environment. What are the implications of this upheaval for the legislative agenda? Of course, we do not know much about the future. So much is changing all the time and so quickly, that it is impossible to make predictions. Nevertheless we can anticipate with some confidence that also in the future production and distribution of works will continue to originate from two different segments, the

<sup>&</sup>lt;sup>11</sup> Both developments had been anticipated a number of years ago: *see* E. VOLOKH, *Cheap Speech and What it Will Do*, 104 *Yale L.J.* 1995, 1805 ff. and I. DE SOLA POOL, *Technologies of Freedom*, Cambridge and London, The Belknap Press of Harvard University Press, 1983, 249-251.

<sup>&</sup>lt;sup>12</sup> It may be questioned whether cloud computing (on which *see* J. ZITTRAIN, *Lost in the Cloud*, in *NY Times*, July 20, 2009; at the EU level Expert Group Report, *The Future of Cloud Computing*, in <a href="http://cordis.europa.eu/fp7/ict/ssai/docs/cloud-report-final.pdf">http://cordis.europa.eu/fp7/ict/ssai/docs/cloud-report-final.pdf</a>) reinforces or calls in question the direction of this process: software-as-a-service, infrastructure-as-a-service and platform-as-a-service slim down the amount of technology which both businesses and the public require in order to generate and access content; and possibly announce the emergence of a new generation of powerful intermediaries.

<sup>&</sup>lt;sup>13</sup> On the early beginnings of the phenomenon, when Stephen King set up a site to allow readers to download his latest short story, 'Riding the bullet', at \$ 2.50 per download, *see* J. EPSTEIN, *The Rattle of Pebbles*, in *The New York Review of Books*, 27 April 2000, 55 ff., at 57-58.

<sup>&</sup>lt;sup>14</sup> See K. VARNELIS, Networked Publics, MIT Press, Cambridge, 2008. For an early appraisal see Pew/Internet Home Broadband Adoption 2006, 28 May 2006.

one based on business and markets, the other on the production and distribution mode which is based on decentralized non-market decisions, often referred to as "social sharing"; that the latter segment, currently encompassing creations which go from the open content made available by Wikipedia and Wikis, from free music and pictures to blogs plus the massive volumes of usergenerated content not ascribable to these genres but still proceeding along the "short route" I just sketched out, will exponentially grow, dwarfing the market segment based on the "long route"; and that the two components of creativity will not be mutually exclusive but will interact.

This is why any agenda for lawmaking for the digital environment should meet at least three requirements.

*First*, the agenda should incorporate rules which are appropriate not only for the long route but also for the short route. <sup>15</sup>

*Second*, it should allow for the "peaceful coexistence" of the two sets of rules, making them interoperable, in such a way that the continued existence and specific contribution of the two sectors is maximized.

*Third*, obstacles inherited by the past which unduly inhibit the emergence of the short route should be gradually phased out in ways which should minimize the disruption of the workings of the old route.

- § 4. Copyright 2.0: Interests and Rules. Against this background, let us think for a moment about the set of rules which would appear to be appropriate to meet the demands of creators operating along the short route.
- 4.1. **The Interests**. In the market based model it was essential for creators and even more so for businesses to control and restrict access to works, as the monopoly granted by expansive exclusive rights enabled them to charge whatever price the market would bear.

However, this would not appear to be the goal of creators currently operating along the short route. The great majority of them, be it 9 out of 10 or 95 out of 100, do not make a living out of "sales" of "copies" of their works; they earn their livelihood in another activity or business and devote a portion – often a very large portion – of their spare time to creating, in a way which may give them a bit of extra income, professional credit and recognition which may have positive spill-over effects in their main line or just fun (or a combination of the three). Even

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<sup>&</sup>lt;sup>15</sup> A similar idea would appear to be shared by proponents of "dual", "hybrid" or "bipolar" systems of protection which have been cropping up in the recent past. See C. GEIGER, Promoting Creativity through Copyright Limitations: Reflections on the Concept of Exclusivity in Copyright Law, in 12 Vanderbilt J. of Ent. and Tech. Law, 2011, 515 ff. and A. PEUKERT, A Bipolar Copyright System for the Digital Networks Environment, in 28 Hastings Comm. & Ent. L.J. 2005, 1 ff. For a theoretical frame of reference see C. HESS-E. OSTROM, Introduction, quote above at note 3.

when the creators operating along the short route are professionally engaged in the creation of works, which is usually not the case, their business model usually is based on income flows different from the sale of copies as such. It would appear that there is a shift whereby even singers and songwriters increasingly rely on performances, tours, endorsements, merchandising and their likes<sup>16</sup> rather than sales of albums and tracks.

This is the business model which the Grateful Dead pioneered, possibly taking a clue from open source software and IBM, and is currently expanding to an increasing number of business. So that the eminent economist Paul Krugmann a few years ago made the case that the demise of reliance on income based on "hard" copies was being generalized and, making his case, quipped that in the long run we will all be the Grateful Dead. What is important for creators engaged along the short route is, it would appear, that their work can be disseminated as widely as possible, on two conditions: first, that the work is correctly attributed to them, and second, that the creators may, if they so choose, reserve the right to prevent third parties to make a commercial profit out of their work unless this is agreed to by the creator herself.

4.2. **The Rules.** If this is so, then what may currently be needed is a new kind of copyright, which we may, if you wish, label Copyright 2.0. I submit that the new system would have four basic features. Old copyright, or Copyright 1.0, would still be available; but it would have to be claimed for by the creator at the onset, e.g. by inserting the old copyright notice, ©, as the US did in the past, before accessing the Berne Convention. If no notice was given, Copyright 2.0 would apply; and this would give creators just one right, the right to attribution. The notice could also be added after creation, but then it would only have the effect of giving exclusivity against specified non authorized uses (in particular: subsequent commercial uses). The Copyright 1.0 protection given by the original notice could be withdrawn, and may be it should be deemed withdrawn after a specified period of time (e.g. the 14 years of the original copyright protection), unless an extension period (of another 14 years) is specifically requested.

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<sup>&</sup>lt;sup>16</sup> Including revenue from product placement embedded in virally disseminated videoclips (as magisterially shown by Lady Gaga).

<sup>17</sup> P. KRUGMAN, *Bits, Band and Books*, New York Times 6 June 2008. This trend seems confirmed by the current behaviour of "traditional" businesses, which are indeed seeking to obtain a share of these novel income streams: *see* J. GAPPER, *The music labels can take a punch*, Financial Times 3 July 2008, noting that labels have started "to get a slice of the action from the artists' other earnings, including live performances and merchandising". Accordingly, "Universal is taking a share of touring and merchandise revenue in 90 per cent of contracts it signs with new artists".

18 The question of "re-formalizig" copyright has come back to discussion in recent times: *see* S. VAN GOMPEL, *Formalities in the digital era: an obstacle or opportunity?*, in (L. Bently, U. Suthersanen and P. Torremans eds.), *Gobal Copyright. Three hundred years since the Statute of Anne, from 1709 to cyberspace*, Edward Elgar, 2010, 395 ff. and C. SPRIGMAN, *Reform(aliz)ing Copyright*, in 57 *Stan. L. Rev.* 2004, 485 ff. The idea of a copyright notice is being upgraded into the notion of global copyright registries: today registration may become a precondition for protection, as state-of-the art technology enables the creation of global digital repositories, giving security on the integrity of the digital files embodying works and on the identity of the person or entity claiming copyright and makes the corresponding filings user-friendly and inexpensive. If one were to consider that making registration into a global registry, rather than notice, a precondition for protection, is too harsh a requirement, then registration might at least be required as a precondition of *extension* of protection.

What is the purpose of the exercise I just sketched out? Well, I confess that, even a couple of years after airing this proposal, I am not so totally sure after all that the four features I just described are really what is appropriate for the needs of our societies and their creators.

The point I am making, however, is that thinking along these lines at least allows us to conceptualize how the different sets of rules correspond to the specific needs of the creators who create works along the long and short route. We assumed that Copyright 1.0 should survive; and we may anticipate that this is likely to be resorted to by creators (and businesses) choosing to operate along the long route. Indeed, the ultimate goal is not to displace old copyright, which seems to be alive and well in many situations, but to add to the menu a second possibility, Copyright 2.0, which should be better tailored to the characters of production and distribution of works prevailing in the current digital environment.

This line of reasoning might also help us in asking the next question. Which set of rules would then operate in each given situation? Well, in some way I already replied to this question: creators should opt-in for Copyright 1.0 at the time of the original release of their work; otherwise the new and more flexible Copyright 2.0 would operate as a default set of provisions. This is why in the past I characterized this approach as "Lessig by default" or, in a less personalized way, "Creative Commons by default". The idea behind the approach is that the very successful uptake of Creative Commons licenses and other copyleft licenses by creators operating along the short route shows that out there, in the digital prairies and wilderness, there is a very large number indeed of creators who prefer to reserve only some rights rather than all rights; and that the time has come for legal systems to recognize this fact of life by creating a regime in which downstream freedom is the rule and a system under which creators may have the option to reserve some rights or, if they like, all the old Copyright 1.0 rights, only if they wish and say so, giving appropriate notice.

§ 5. The New International Framework and the Role of the EU. Of course, to go this way, one would have to change hundreds of laws and a few international conventions (including Berne and TRIPs). Of the digital age, insisted that it was too early to legislate. In my opinion, however, the time has now come. It is for you to decide whether this is an impossibility, a dream or, may be, a vision. What I know is that the present time – and the present place – are the best to discuss this.

Let me also remark that EU should take the lead in this regard, for a variety of reasons. First, because it has the legitimacy and the prestige to do it. The same States which currently are

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<sup>&</sup>lt;sup>19</sup> In November 2009 the Creative Commons Monitor project calculated that more than 207 million web pages had been licensed under some Creative Commons Public License.

<sup>&</sup>lt;sup>20</sup> For a discussion see C. SPRIGMAN, Reform(aliz)ing Copyright, above at note 18.

EU member States to a large extent coincide with the ones which originally conceived and put in place the Berne Convention;<sup>21</sup> today they still have the cultural and international prestige required to take the initiative to adapt Berne to the digital environment.

Second, I submit that taking up Copyright 2.0 is the long term interest not only of our society and of our culture but also of our economy. To argue the case in a detailed and comprehensive way, one would need multiple interdisciplinary volumes rather than the end tail of a 15 minutes presentation. Let me therefore confine myself to two short – and admittedly a bit too assertive – remarks.

In the last three decades much of IP policy in the developed world has turned around the idea that ratcheting up protection of IPRs is a good idea, as it protects by strong property rights assets which typically belong to US and EU rightholders, and that the other brilliant idea is to expand enforcement standards abroad, with a view to boosting revenue generated by exports of IP-protected goods or by inflows of royalties dutifully paid by foreign users. This approach has been put at the basis of the Uruguay Round negotiations which finally lead to the adoption of the WTO and of its IP component, TRIPs.<sup>22</sup> It was also quickly taken up by the EU and particularly so in connection with copyright based products, as if our legacy of artistic creation could be a long lasting source of income flowing into Europe from the rest of the world until the (very long indeed) term of protection expires.

There are several grounds to believe that this strategy is both illusory and doomed. Here, leaving aside that it is easier that the biblical camel passes through the needle's eye than persuading our developing neighbours that strong enforcement of our rights is in their interest, I will only mention the fact that finally the domestic economies of our business partners have reached such a size that their demands that we give them access to our technology and IP as a precondition to our obtaining access to their markets are more and more successful.<sup>23</sup>

While IP-based exclusivity protection would (unsurprisingly) appear not to assist our economies as much as our trade negotiators had hoped, I suggest that we had better to place our bets on the third paradigm of innovation which seems to be emerging: distributed innovation through digital network driven cooperation. In the beginning innovation was the preserve of individuals; at a later stage the engine was to be found in organizations, be they the firms or research entities. Both modes required appropriation of the results of innovation by means of

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<sup>&</sup>lt;sup>21</sup> See S. RICKETSON, The Birth of the Berne Union, in (F.M. Abbott, T. Cottier, F. Gurry eds.), The International Intellectual Property System: Commentary and Materials, Kluwer Law International, The Hague/London/Boston, 1999, 861 ff.

<sup>&</sup>lt;sup>22</sup> On the origins of the American idea, swiftly taken up by European trade diplomacy, that the lack of global IP protection and enforcement amounts to a "trade barrier" see P. DAVID, Intellectual Property Institutions and the Panda's Thumb: Patents, Copyrights, and Trade Secrets in Economic Theory and History, in M.B. Wallerstein-M.E. Mogee-R.A. Schoen eds., Global Dimensions of Intellectual Property Rights in Science and Technology, National Academy Press, Washington, D.C., 1993, 19 ff. and J. BRAITHWAITE-P. DRAHOS, Global Business Regulation, Cambridge University Press, Cambridge, 2000, 61 ff.

<sup>&</sup>lt;sup>23</sup> Anecdotal evidence from nuclear plants and high speed trains.

property rights over IP, to provide the incentives to creation. This has changed radically in the last few decades: while classical property rights based IP protection has increasingly proved unequal to the new challenges of innovation.<sup>24</sup> at the same time network driven innovation is seen to thrive in contexts where which exclusivity has been relinquished and is to a large extent replaced by cooperative behaviour among the players, based on a combination of contractual arrangements and liability rules.<sup>25</sup>

I submit that our societies may obtain a genuine competitive advantage in fostering innovation based on this third paradigm rather than in insisting on global acceptance of strong IP rights which have in part outlived their function; and that we should consider how to make the best of the new chances offered to us.

Reforming old international IP conventions which are to a large extent based on the assumption of exclusivity, including Berne and TRIPs, <sup>26</sup> should be part of this larger job.

§ 6. The 2010-2020 Digital Agenda for Europe. Of course, reforming international conventions takes time. In the past the EU has shown that it is able to take up the challenge of an economic crisis to explore new opportunities for innovation and growth. What are then the intermediate priorities? Which opportunities may we seize now in this regard, while the process leading to Copyright 2.0 and Berne 2.0 is – hopefully – kick-started?

It would seem that the "Digital Agenda for Europe" indicates a number of current priorities which perfectly fit the broader approach I just advocated. Let me mention just three of them.

First, orphan works should be brought into the fold of the EU digital libraries initiative, just as advocated by the Digital Agenda, 28 by means of extended collective licenses. 29 Under the

<sup>&</sup>lt;sup>24</sup> As anticipated by J.H. REICHMAN, Legal Hybrids Between the Patent and Copyright Paradigms, in 94 Columbia L. Rev., 1994, 2432 ff. For a confirmation of the shortcomings of the classical approach in the new technological environment see M.A. Heller, The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, in 111 Harvard Law Review, 1998, 111 ff. and M.A. HELLER-R.S. EISENBERG, Can Patents Deter Innovation? The Anticommons in Biomedical Research, in Science 280, 1998, 698 ff. A review of the relevant literature is to be found in my Is There an Antitrust Antidote Against IP Overprotection within TRIPs? in 10 Marquette Intellectual Property Law Review, 2006, 305 ff.

<sup>&</sup>lt;sup>25</sup> For examples of the working of this third paradigm see A.K. RAI-J.H. REICHMAN-P.F. UHLIR-C. CROSSMAN, Pathways Across the Valley of Death: Novel Intellectual Property Strategies for Accelerated Drug Discovery, in VIII Yale Journal of Health Policy, Law, and Ethics, 2008, 1 ff. (in connection with drug discovery) and J. H. REICHMAN & P. UHLIR, A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment, in 66 Law & Contemp. Probs. 2003, 315 ff.

<sup>&</sup>lt;sup>26</sup> But see the refreshing remarks showing that exclusivity is not even today mandated either by Berne and by TRIPs see C. GEIGER, *Promoting Creativity through Copyright Limitations*, quoted above at note 15, 544 ff. <sup>27</sup> EUROPEAN COMMISSION, *A Digital Agenda for Europe*, quoted above at note 1.

<sup>&</sup>lt;sup>28</sup> EUROPEAN COMMISSION, A Digital Agenda for Europe, quoted above at note 1, 6-7; 29-30.

mechanism, any rightholder may at any time reveal herself and opt out of the regime. If one stops for a moment to think about it, opting out of a extended collective license scheme amounts to opting in full copyright protection. In this perspective, the orphan works regime would be a nice, first experiment in the direction of requiring opting in Copyright 1.0.

*Second*, collective rights management organisations are aptly characterized as a fine example of contracting into liability.<sup>30</sup> Individual property rights are pooled into a collecting society, which converts the full property right over the individual work into a pro-rata share of the claim to global compensation agreed in advance with users. What is required in the digital age is that would be users are not required to go around, hat in hand, to all the 27 EU CRMOs to get from each of them clearance for the service; and that cross-border pan European licensing takes off. The Digital Agenda is rightly looking into this as well.<sup>31</sup>

*Third:* Public sector information is an essential input for the emergence of the third paradigm of innovation I just sketched out in § 5. Maps, geo-data, environmental data-sets, laws, regulations and case law and the like may be brought together across jurisdictions through digital networks and contribute to the emergence of new aggregated information products and services at pan-European level. The current text of Directive 98/2003 still needs several upgrades to contribute to the goal; so that its revision is one more of the focal points of the Digital Agenda. 32

If we combine the three "action plans", we can see that, while certainly they do not amount – and do not intend to amount – to a roadmap to Berne 2.0, they bring together three components which are vital to reconciling IP and the new digital environment. CRMOs are called to overcome their national limitations to operate cross-border along the routes opened up by digital technology. Orphan works are seen as a possible area for a more flexible statutory license regime, unless their holders show up and opt out of it. The enormous wealth of data sets generated by public sector bodies engaged in their primary function is increasingly made available to the pioneers of the third innovation paradigm.

Whether these test beds of legislative innovation – the three action plans I briefly referred to – are to take off in actual legislative innovation and coalesce into a normative environment which brings us closer to a reconciliation of copyright law and the digital environment, we do not know yet. I surely hope so.

<sup>&</sup>lt;sup>29</sup> The literature on ECL is significantly growing: see, in addition to T. KOSKINEN-OLSSON, *Collective Management in the Nordic Countries*, in Daniel Gervais (ed.), *Collective Management of Copyright and Related Rights*, Wolters-Kluwer, 2006, 257 ff., the literature quoted in V. GRASSMUCK, *The World is Going Flat(-Rate)*, above at note 3.

<sup>&</sup>lt;sup>30</sup> R.P. MERGES, Contracting Into Liability Rules: Intellectual Property Rights and Collective Rights Organisations, in 84 Cal. L. Rev., 1996, 1293 ss.

<sup>&</sup>lt;sup>31</sup> EUROPEAN COMMISSION, A Digital Agenda for Europe, quoted above at note 1, 7-8.

<sup>&</sup>lt;sup>32</sup> EUROPEAN COMMISSION, A Digital Agenda for Europe, quoted above at note 1, 9-10. The specific copyright issue in the PSI Directive is whether the rules concerning government IP right may help or hinder the process, as illustrated in detail by E. DERCLAYE, Does the Directive on the Re-use of Public Sector Information affect the State's database sui-generis right?, in J. Gaster, E. Schweighofer & P. Sint P., Knowledge Rights – Legal, societal and related technological aspects, Austrian Computer Society, 2008, 137 ff.

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