



Markets in the online public sphere

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Executive Summary

The internet has become a battle-ground for competing economic, political and cultural interests. Each attempts to defend itself through attacking the legitimacy of others, using moral and empirical arguments, with intellectual property disputes a classic manifestation of this. For policy-makers, this results in a state of high confusion: it is not clear where the public interest lies, when there are multiple and conflicting accounts of it, not only based on differing moral assumptions, but also on differing empirical analyses.

We need to develop a clearer sense of the public interest in this terrain. It is not adequate for government simply to take sides in the debate and alienate others, and so we should begin by developing a clearer sense of how these various interests fit together, and why they have come into conflict with each other.

The argument presented in this paper is that the public sphere consists of a number of different spaces of information flows, each operating according to its own norms. For instance, the implicit rules that govern a public debate are very different from those governing the publishing of a book or the sale of consultancy services. In an offline world, these differing norms manage to live side by side successfully. Online they infringe on one another's territory, and disputes escalate.

The most disruptive source of conflict is between two different business models: those such as portals which commercialize *access* to information, and those such as music publishers which hold *intellectual property rights* in information. The pressure this places upon businesses means that they expand into other, previously non-commercial parts of the public sphere, coming under attack for applying commercial logic where it is unwelcome (such as cultural and democratic spaces).

The paper concludes not with policy recommendations, but with a definition of the challenges this set of conflicts poses to policy-makers. These are as follows:

1. how can we balance economic evidence against moral considerations?
2. how should we regulate markets where economic evidence is ambivalent?
3. should government invest money in expanding the public sphere, for instance through investing in more public service communications?
4. should new technologies be exploited to create new models of public engagement, such as open source models?

1. Introduction

Developments in Information and Communication Technologies (ICT) have been notoriously rapid and disruptive over the past twenty years. The driving forces behind these developments are twofold. Firstly, there is the shift from analogue ICTs to digital ICTs, manifest in everything from sound recordings to telephony, and from knowledge management to journalism. As this transition proceeds, so it becomes possible for different devices to communicate with one another, allowing separate technologies to converge, and for individual pieces of content (for instance video clips) to be received on an ever wider range of devices. Secondly, the internet has emerged as a popular and transformative medium for a whole host of social relationships. This includes interaction between the citizen and the state (e-government), consumers and retailers (e-commerce), employees and employers (teleworking), and individuals with each other (online communities). The transformative potential of this technology lies not only in its global reach, but in its intrinsically open architecture: barriers to interaction can be built, and with sufficient effort they can be built very effectively, but they are invariably ad hoc constructions in an otherwise anarchic zone of interactivity.

When physical or technological limits on human interaction are removed, it falls to legislators and etiquette to determine which ones should be protected *normatively*.ⁱ For instance, the emergence of dangerous technologies, such as weapons or drugs, requires policy innovations that weren't previously required to limit their use. Equally, advances in industrial infrastructure will often be counter-balanced with civil resistance in the form of environmental campaigns. In the digital age, etiquette has developed to stipulate when a mobile phone should be switched off, rather than allow social behaviour to be determined purely by a nihilistic enthusiasm for what is possible. The normative defence of the status quo is as important a feature of modernisation as the pursuit of greater technological capacity, and the two should sit in tension with one another.ⁱⁱ

The combination of digital ICTs and the internet strips away numerous distinctions and barriers that were previously beyond question, being physical or technological facts of society. It is no longer necessarily clear, for instance, where public modes of communication end and private ones begin, now that they can share the same media. Similarly, the ease with which ideas or creations can be shared with a global public means that it is hard to specify when something is an *act of conversation*, when it is a *piece of content*, and when it is something of long-lasting value that must be preserved. It may be that these are distinctions we can do without, but it may also be that they require re-affirming, or re-establishing in new ways.

While some may celebrate and promote a form of information "anarcho-communism" in which any attempt to create ethical or legal order on the internet is resisted, any other political response to these developments needs to be based on a coherent view of where barriers should be erected and where they should not.ⁱⁱⁱ A form of 'information policy' is required, that is founded on an over-arching and philosophically sophisticated vision of the needs and rights of individuals, communities and organisations in the information age.^{iv} But what is so problematic in achieving this is that normative and philosophical considerations (for instance, the notion of *citizenship*) must co-exist with the material realities of global capitalism, which creates imperatives that will occasionally contradict them. Further complications arise from the fact that there is no single homogeneous set of normative considerations that all of us recognise, and different ideals of the public sphere can come into conflict with one another. To add yet more confusion, there is no single homogeneous model of global capitalism with an agreed list of imperatives, but rival models, profiting from very different business models, some of which may be actively seeking to overpower others.

It is no surprise, then, that policies such as those which make up the intellectual property (IP) regime may very often be constructed in an ad hoc fashion. Governments may aspire to serve 'the public interest', but this is made easier when both empirical evidence and moral intuition provide a relatively clear-cut sense of where this might lie. In the case of IP, this is far from the case, and as a result, law in this area has tended to be made like a cocktail with competing interests all fed into the mixer, and the strongest and loudest determining the dominant flavour. The public perception that this is an

illegitimate way to make policy leads to a decline in trust, and often – as the example of peer-to-peer music distribution demonstrates – a flouting of the law.

This paper attempts to shine a light upon this confusing state of affairs, as the first step to moving beyond it. If policy-makers are to move beyond a position of middle-men between competing normative and economic interests in the management of information, and to regain the status of custodians of the public interest, they must firstly appreciate what those various normative and economic interests are. Secondly, they must understand how and where these competing interests do and don't conflict with one another and, in particular, to show themselves capable of conceiving of economic and normative imperatives side by side, and of coping with ambiguous economic evidence. This may involve developing new hybrid categories and metrics (such as 'public value') which can be the basis of successful syntheses of different interests, and not simply temporary cease-fires.

Of course the toughest challenge is to take decisions on very specific questions of the public interest, which lie outside of the scope of this paper. Should copyright terms be extended? Which parts of digital content need preserving, by whom and for whom? When is access to a given medium a democratic right, rather than just a consumer good? These are questions that must be addressed individually, with the best available evidence and moral arguments considered. But given the lack of clarity on where these point, it is important that policy-makers begin by constructing a shared understanding of how these arguments relate to one another, and what it is that they each refer to.

2. Temporal genres of information

The internet, in tandem with the various ICTs that can now communicate via it, is a chaotic and highly complex network of information flows. Within that network, an endless variety of social activities are going on, from Voice-Over IP (VOIP) telephone conversations, to legal and illegal downloading of music, to publishing of academic papers, to community email lists and so on. It is commonly said that the internet cannot be regulated, at least not in the way that broadcasting can be regulated; but that does not mean that there are not technologies, etiquettes and laws which affect when information is constrained and when it is released. Governments are increasingly active at tracing illegal activity online, while businesses have developed Digital Rights Management (DRM) technologies to prevent their digital products being shared with the impunity that the internet makes possible.^v Often pulling in the opposite direction, meanwhile, volunteers exploit the freedom of the internet to collaborate on open source projects and amateur publishing, while millions of people share content legally and illegally through file-sharing software. How to classify all of this, and disentangle the economic from the normative imperatives?

The model offered here is to classify different types of information flows in *temporal* terms. When we look at the activities that take place online, all of them involve the sharing of information, but they are distinguished by the longevity of that information's descriptive power. To illustrate this, let us consider a few examples from the offline world for a moment. If two people are chatting to one another about politics, the lifespan of each piece of information exchanged is ephemeral. It lasts long enough to be heard and interpreted, before being superseded by the response. If, on the other hand, I publish a novel, I am sharing information that is available for weeks, years and possibly generations. In the first instance, we must both participate simultaneously; in the second, different parties can participate at very different moments in time. This distinction is often referred to as that between 'synchronous' and 'asynchronous' communication.

Each of these two categories can be subdivided further in temporal terms. When I engage in real-time communication with someone, I can do so in a social and interactive fashion, or so as to benefit from a particular source of knowledge passively. The former is something we expect to do with our friends for fairly instant gratification, while the latter is something that takes place when we go to the doctor for authoritative advice. Let us call this the difference between *deliberation* and a *service*. Meanwhile, asynchronous communication can occur with different time horizons in mind as well. Buying a pop song is a good way of being able to listen to it whenever you like, rather than when a radio station chooses to play it, but you wouldn't necessarily expect to be listening to it decades later. A fantastic work of art, on the other hand, will be deemed of value for future generations and for that reason preserved by a gallery or museum. Let us call this the difference between *content* and *heritage*.

	Deliberation	Service	Content	Heritage
Temporality of communication	Synchronous, interactive	Synchronous passive	Asynchronous, temporal	Asynchronous, timeless
Examples	Socialising; debating	Performance; education	Academic paper; sound recording	'Great art'; scientific breakthrough

Table 1: Temporal genres of information flows

Table 1 depicts these four genres of information and communication, and their relation to time. It should be stressed that each of these categories is an abstraction or ideal (what sociologists would call 'ideal types'), and not a clearly distinguishable type of communication. Indeed the difficulty in

distinguishing one from the other is precisely what makes policy-making so tricky in this context. After all, deliberation needn't necessarily be synchronous, if it occurs via a message board or the comment pages of a newspaper. And, as we will discuss, if someone ends up becoming famous, then every form of communication that involves them may end up being classified as heritage. Digitisation has a tendency to confuse different time horizons, and enable different territories of communication to mingle.^{vi} But the hope in this paper is that these categories can be used with a degree of clarity as heuristic principles, to be judged on their capacity to illuminate this policy terrain, rather than as hard and fast entities in their own right. The author does not claim this to be an absolutely definitive classification, and accepts that there may be more subtle ways of drawing such distinctions; the classification should be judged on its helpfulness as much as on its empirical validity.

Any of the activities that might fall under these four genres can be valuable in and of themselves. They are all important parts of the public sphere, characterised by the free exchange of ideas, political debate, art and art criticism. In a perfect world we might construct information policy purely around this pursuit of public discourse and sharing of information, although even then we would want to achieve ways of distinguishing valuable artefacts and ideas from less valuable ones. Even a society that was dedicated purely to the pursuit of learning and creativity would not be one of information anarchy, but would require filters that could manage and evaluate quality. We would still want ways of deciding and highlighting which poems were of ephemeral value, which ones were worthy of further public debate, and which ones deserved to be preserved for future generations.

But aside from these normative reasons for erecting filters and barriers in amongst the chaos of information flows, there are also equally (or more) powerful economic reasons. As western economies become more dependent on the production and management of knowledge, so it becomes important that techniques of IP control and user authentication are embedded online, either legally or technologically. Many of the activities that we might value in and of themselves, involving the publishing and sharing of ideas, are now critical parts of our economy, and are subject to economic imperatives. This does not mean that commercial management of information cannot co-exist with free, public exchange of information, indeed economists are agreed that markets *need* good circulation of information to work effectively, and businesses thrive in cultures where ideas are exchanged freely.

The marketplace sits within the public sphere, and there will remain various parts of the public sphere that few of us would ever want to see commercialised. For instance, it is an important principle of libraries that they offer the bulk of their information for free. Likewise, a democratic debate would cease to be recognised as such, if participants were obliged to buy entry to it (or indeed were *able* to buy entry to it...). However, it is clear that of the four genres of information exchange outlined in Table 1, there are two in particular which are now important parts of how wealth is created in the UK and other advanced economies, namely *services* and *content*. While we may not be prepared to pay to enter a library or to participate in democracy, we are quite used to paying for services such as consultancy, or for content such as music or video.

3. Delineation and defence of separate genres of information flow

This paper began by arguing that when technological advances dissolve certain physical or technological limits on human behaviour, it becomes necessary to ask whether we may want to defend those limits normatively. When ICTs enable free and easy integration of separate spheres of information, for instance, it is necessary to keep this in check with data protection legislation. Similarly, when a single medium (i.e. the internet) can act as a platform for any type of information flow – deliberation, services, content or heritage – we need to think carefully about how we continue to distinguish these from one another in an online context, for both economic and normative reasons. A number of options are open to us, some of which rely on government and law, some of which on contract, some of which based on etiquette, and some of which rely on technology. Let us go through each genre of information flow in turn.

Deliberation

There are a variety of areas of our public sphere where it is deemed reasonable for individuals to communicate freely and openly, without commerce exerting undue influence. We have certain rights, now enshrined in European Law, including freedom of speech and freedom of association. These rights can be exercised either in pursuit of engagement in the democratic system itself, or as part of civil society and campaign groups, or simply so as to mingle in public spaces. Government plays an important part in defending the entitlement to engage in deliberation, and also in defining its limits, by granting rights. But this is also something that is policed by the free press, and the NGOs, intellectuals and voluntary bodies that benefit from these freedoms.

It is also inevitably the case that this part of the public sphere provides a critical resource for entrepreneurs seeking to put new ventures together, and making requisite contacts. The study of social capital has shown how societies with vibrant spheres of public participation and outward looking social networks tend to also have more dynamic and creative economies.^{vii} Economists themselves recognise that markets will exhibit ‘information asymmetries’ – cases in which the buyer knows less about the utility of a product than the seller – and that repeat interactions, trust and reputation mechanisms are ways of overcoming these.^{viii} For this reason, a market for used cars is likely to be more vibrant where information about the quality of cars is circulating easily and freely.

Markets for information, be it a service or a piece of content, suffer especially from information asymmetries, because the product in question is intangible. As Kenneth Arrow puts it, information’s “value to the purchaser is not known until he has the information, but then he has in effect acquired it without cost”.^{ix} Consultants or musicians need to find ways of promoting their work, but without this imperilling their ability to profit from it, or be recognised for it. The deliberative part of the public sphere is a critical means of facilitating this, helping to distribute reputation, or share content within the legal bounds of ‘fair use’. Yet despite this important economic role, it is important that the deliberative part of the public sphere is valued for its own sake, and not viewed as a means to commercial ends, a strategy which will only weaken it in the long term and therefore undermine that very economic objective.

The internet is famed for its ability to support and expand this part of the public sphere. Most internet users will pay for use of the internet (usually via a monthly subscription, but sometimes in terms of quantity of data exchanged), although the UK government has made good on its pledge to put free internet access within walking distance of everyone, using libraries, UK Online Centres and schools. Once individuals have this access, the internet

offers unparalleled choice and opportunity to socialise, campaign and deliberate. Again, the open architecture of the internet means that groups are free to construct their own spaces with their own rules, which are extremely difficult to regulate even in cases where governments wish to (China being the exception which proves the rule). It does of course also mean that 'fair use' and sharing of content constantly teeters on the edge of global publishing, meaning that the legitimate limits of deliberation in the public sphere can become very easily transgressed.

Services

Unlike deliberation, services represent a form of information flow that usually has to be paid for one way or another. The question is *by whom*. When a business hires a consultant, they accept that they will have to pay for the services delivered. When we chose to go to a concert, we accept that we will have to pay for a ticket. Even a church service will include a collection. But in a number of cases, services can be paid for indirectly, two of which are particularly significant. Firstly, services can be 'public services', paid for through public money, financed through taxation and government borrowing. This includes all the obvious examples, such as healthcare and education, but also some less obvious ones such as public service broadcasting (PSB). Secondly, services can be deemed 'customer services' and offered for free to customers who have already bought a product. If, for instance, I purchase Microsoft software, I am also entitled to free security upgrades when new viruses arise.

Some commentators have suggested that our economy is shifting gradually away from payment for the *ownership of goods* (which would include content), and towards payment for *access to services*. As the American intellectual Jeremy Rifkin argues:

The shift from markets to networks and from ownership to access, the marginalisation of physical property and the ascendance of intellectual property, and the increasing commodification of human relationships are slowly leading us out of an era in which the exchange of property is the critical function of the economy and into a new world in which the purchase of lived experiences becomes the consummate commodity.^x

As Rifkin points out, we find ourselves now being given mobile phones for free, but paying to use them; a small but growing number of independent 'knowledge workers' sell their time on a day-by-day basis, rather than become employees of a firm; many large brands such as Dell computers don't actually manufacture anything, but act as middle-men between customers and suppliers, ensuring that customers get a reliable product at a good price. These are all examples of how we are paying for services rather than goods.

Despite their growing significance in the global economy, services needn't be untouched by broader normative considerations. Professional associations were established precisely to ensure that the delivery of certain services was done with regard for integrity and the public interest. Professions such as the Royal Institute of British Architects were established in the late nineteenth century, partly to prevent their respective service industry becoming determined purely by commercial imperatives. As a result, an architect ought (in principle) occasionally to decline the offer of some work, on the basis that it is not in the public interest to carry it out. The work of open source software developers might be considered a similarly vocational type of activity in the digital age.

In the information economy, and in the context of the internet in particular, services are an increasingly attractive genre of information flow. As we will discuss shortly, it is becoming

increasingly difficult to control ownership of content on the internet, but comparatively easy to control access to a service. This is because the former is asynchronous, and the latter is synchronous. In the software industry, Linux is a freely available operating system, that has been developed through open source methods, but this does not mean it has no commercial dimension: there are a large number of companies who offer to install Linux for free, but then charge for maintenance and additional services over time. Meanwhile, as fears about piracy of music and video rise, it is likely that the content industries will offer more ways of offering entertainment as a service (such as video on-demand), rather than as a product. The key technologies in amongst this are authentication mechanisms, such as identity cards and digital signatures, tools which demonstrate to a service supplier that I am the person who is entitled to it. These technologies ensure that I can't behave like the owner of the service, and share it.

Content

Many of the cultural and educational information flows in society are asynchronous, resulting in the creation and sale of content. Books, sound recordings, films, proprietary software, photography and newspapers are all forms of content, and they immediately raise questions of investment, ownership and expenditure. Some forms of content are cheap to produce, but more expensive to reproduce such as novels. Others are expensive to produce, but comparatively cheap to reproduce such as films. Practises, laws and technologies of IP have developed to ensure that financial rewards are distributed to those who are deserving of them, either because it was their talent that created the content, or their investment that made it possible to produce or reproduce. Meanwhile, consumers are offered the opportunity to own a copy of the content, which they can share within the bounds of 'fair use' but cannot legally reproduce, broadcast, rent out or re-sell.

Copyright is the form of intellectual property that applies to all the examples of content just given. Legally speaking, copyright is not a form of ownership, but a government-granted temporary monopoly. According to economic reasoning, information differs from many other types of assets for two reasons. Firstly, it is 'non-rival', meaning that it does not become depleted by additional users, in the way that private goods do. Secondly, it is 'non-excludable', meaning it is difficult to prevent other people from using it. According to this economic logic, information is therefore defined as a *public good*, which can be ring-fenced but never fundamentally *owned*. Part of the function of copyright law is to counteract this public quality, to give financial incentives to creators to produce new work which would otherwise slip out of their grasp for free. But there is a second moral dimension to copyright, namely the right of a creator to be publicly *recognised* for their work, and not be plagiarised (this was the primary force in the development of French intellectual property law).^{xi} There are therefore both economic and normative reasons for the existence of copyright in our society.

Evidently there are some types of content where the normative aspect of IP is more important than the economic aspect, and there are some where it is the other way around. An art-house filmmaker is unlikely to be working for the pursuit of financial profit, and would perhaps be very surprised should it occur. But they would be horrified if their work were plagiarised by a rival. The inverse of this is more common. The musicians who write songs for Britney Spears are relatively unheard of individuals, who would probably be unconcerned whether they are recognised for their work. But they are extremely wealthy, and become wealthier every time their work is re-used. Naturally, most creators lie somewhere between these two poles, wanting both some recognition and some financial reward, though the desired balance between the two will be different in every case.

Publishers themselves also have a mix of normative and economic motivations. A book publisher will often try to balance economic concerns about whether there is a market for a book, against normative judgements as to whether there is some public interest in having the book published. A book publisher that only looked to the market would seek out only those books that operated within tried and tested formulas; but one which looked only at the intrinsic quality of the book and not at its marketability might end up in economic dire straights. The same is true in music, newspapers, films and so on. There may be many admirable circumstances where a loss-making piece of content is published on the basis that it is important, in which case a publisher will hope to cross-subsidise this from more profitable areas of content. In some rare circumstances, such as film or an especially important journal, government itself may take a view that content production is of such importance to the public interest, that it must be subsidised with public money.^{xii}

The internet poses huge challenges and threats to content industries, although not necessarily to creators themselves. Some have argued that the very notion of copyright is ill-suited to the age of the internet, given that any use of the internet technically involves constant copying of pieces of content. To look at a photo online is technically to copy it into one's own computer and although this may in principle count as 'fair use', the point remains that this is a medium built so as to facilitate instant and virtually free sharing of information. The case of illegal file-sharing of music has been the most high profile demonstration of this. The solution most favoured by content industries is to use Digital Rights Management Technologies (DRM) to ring-fence pieces of content, and to make it far harder to share after being bought. DRM creates technological defences of IP on behalf of rights-holders, but this has also been given additional *legal* support by governments: the Digital Millennium Copyright Act in the US and the European Copyright Directive make it illegal to break a DRM protection mechanism, rather than just difficult.

New publishing and retail models have also arisen, thanks to the internet, which allow a greater variety of content to be published and sold. When book-sellers or publishers move online, they lose the physical confines of space which bricks and mortar shops and traditional reproduction techniques impose. Amazon.com is able to offer far more books than a high street bookseller, because they don't need to keep them on shelves accessible to the public. And where a book is of such niche interest that it isn't even deserving of a print run, then Amazon is still able to offer it as a pdf to download and print oneself. A digital music retailer such as Apple iTunes has the same opportunity (not yet taken) to supply a greater breadth of products than high street music vendors. There are also early signs of publishing models that bi-pass publishing companies and the high street altogether, where payment goes directly from consumer to the artist.^{xiii}

In the long term, the most significant aspect of these developments is likely to be the emergence of what is called 'the long tail' business model.^{xiv} Research done on Amazon.com has found that the company now makes more money (57 per cent of revenue) from selling the less popular books that the high street *doesn't* stock than it does from selling best sellers.^{xv} This is happening at the same time as high street bookshops and publishers are receiving criticism for pulling in the opposite direction, concentrating more and more on a narrow range of highly profitable books.^{xvi} The internet has shown that there is as much aggregate market demand for the wide variety of specialist and obscure forms of content as there is for the small number of big hits that publishers traditionally relied upon financially. Culturally this could lead to a more diverse public sphere, or a more fractured one, depending on one's perspective.

Alternatives to copyright have been experimented with by some online content producers and publishers. Creative Commons licenses offer users the opportunity to share content without permission, but with certain provisos as set by the license holder. For instance, the license holder, who may be a musician or novelist, can insist that their work remain attributed to them, so as to ensure that their moral rights are not breached. Public institutions, such as the BBC, the British Film Institute and British Library, are in a position to use Creative Commons-type licenses, given that they don't rely entirely on the sale of individual pieces of content. In these instances, the tax-payer finances the creation and publishing of content, and it is then returned to the public on the basis that it is a public good, for them to use as they see fit.

On the margins of publishing, and amongst those not relying on IP for revenue, the internet has also led to the development of entirely new norms of publishing and sharing of content. According to the etiquette and licensing of the open source software movement, all code should be published online, for others to borrow, adapt and add to, but so long as they don't attempt to privatise or commercialise the result. Licenses are created, similar to Creative Commons licenses, which force users and creators of content to leave their work in the public domain.^{xvii} As Geoff Mulgan and Tom Steinberg have demonstrated, the model of open source development can be applied in a range of other fields in which one individual makes a contribution to the commons, then others work on improving it, editing it and adapting it.^{xviii} Where previous media operated around norms of edit-then-publish, the internet has facilitated norms of publish-then-edit. Wikipedia, for instance, is an online encyclopaedia written and edited by its users. New entries can be made by users, and facts checked and added.

Heritage

This paper has argued that the distinction between one genre of information flow and another is ultimately temporal. In so far as intellectual property is concerned, this is certainly true in how content is defined. Copyright, like patents on technological or scientific innovations, is delineated by time, and a copyright is always limited to a certain number of years. In the UK, this is equivalent to seventy years after the death of the creator, therefore ensuring that the creator is adequately rewarded for their work, and the publisher is able to recoup costs for some time thereafter. Beyond this term, the monopoly right of the rights-holder comes to an end, and the content becomes public domain, for anyone to use or reproduce. From this point forward, content might be defined as heritage.

The primary principle of heritage is that certain forms of information or cultural artefacts are of timeless value, and must be preserved for future generations, in the name of memory or progress. When copyright expires, content becomes a public good, although this does not mean that it is entirely divorced from the commercial world. The public is still reliant on publishers willing to reproduce the work of Shakespeare or Gershwin, and those publishers – such as Penguin book publishers or Naxos music publishers – will naturally want to make a profit from doing so.

But heritage is not simply what is left when IP expires, but something that must be actively preserved and made available to the public. Libraries, museums, archives and art galleries, together with critics and experts, must take decisions on which artefacts, knowledge and creations need to be preserved, and how they can be most effectively presented to the public. Critical judgement is needed to distinguish content that can be left to deteriorate from that which needs to be obtained and protected for the public interest. When this is still relatively

recent, there can be considerable problems in obtaining the rights to this content. But this is an area of the public sphere quite unlike that of deliberation. Where democratic spaces rest on a relativist sense that everyone's voice is of equal value, the normative foundations of heritage are that some forms of information are of intrinsic value, and others are not. There is a difference between 'great works' and lesser artefacts; some people's thoughts are of timeless value, whereas others' are of only ephemeral value, as deliberation. The question of who is to make this judgement is entirely separate (and it is not part of the remit of public libraries or archives to do so), but one way or another, qualitative judgements must be made.

The internet offers unprecedented opportunities to make heritage available to the public, so long as it can be digitised. The British Library is currently engaged in a hugely ambitious programme of shifting their resources online, which could then be available for use to a national or global public. Problems invariably arise, however, when some pieces of content are not yet outside of copyright, and though every copyright holder has a legal duty to deposit a copy of their work with the British Library, this does not grant the library the right to reproduce that work digitally or otherwise. Questions are also asked as to whether a library paid for by the British public should be creating a resource available to internet users worldwide.

The other significant opportunity for our heritage offered by the internet is to preserve new creations in unprecedented quantities. Due to web publishing and email, a vast amount of information can potentially be retained for purposes of heritage, which could give future generations rich insights into the lives of influential or brilliant people. Martin Amis's emails would no doubt be of interest to some literary critics in years to come, in the same way as the letters of famous novelists have often been published after their death. The question ICT poses to archivists and museums is which bits of information are worth preserving? This paper has sought to distinguish deliberations from services, and services from content, but it may be that we can only notice the difference years later. An archivist, on the other hand, has to attempt to determine what counts as heritage before it is too late. The British web archiving consortium, for instance, has selected a number of institutions whose web publishing may be of value to future generations. But it has to do so on the basis of which institutions are likely to be of interest. An alternative model is that of the US-based Internet Archive, which is attempting to archive the entire world wide web systematically. Its 'Wayback' machine enables users to type in a URL and a date, and view a webpage as it looked several years earlier.

Summary

What this section has sought to show is the subtlety of the distinctions between the four genres of information flows, deliberation, services, content and heritage. Various tools are used to distinguish between them, and then to enforce the distinction, including etiquette, law and technology. Without these distinctions, the internet would represent nothing but a chaotic network of information flows. Some of these distinctions exist for normative reasons, such as the definition of heritage. But some of them also exist for important economic reasons. Both publishing and service industries rely on preventing people from exploiting the open architecture of the internet to the full, because it is only through closure (be it through a user authentication mechanism or DRM) that they are able to maintain any scarcity around what it is that they are supplying. Economists may deem information to be a 'public good', but in order to survive these industries have to do what they can to alter this artificially.

Table 2 outlines a summary of this discussion, showing the four pillars of the public sphere. The two most commercially viable ones, services and content, are shaded grey.

	Deliberation	Service	Content	Heritage
Temporality of communication	Synchronous, interactive	Synchronous passive	Asynchronous, temporal	Asynchronous, timeless
Role of Government	Defending rights	Public services; PSB	Intellectual property law; subsidy	Museums, libraries, archives
Art	Recommendation; fair use	Performance	Recording; reproduction	Preservation
Knowledge	Debate	Consultancy; lecture	Academic journal; book	Archiving
Online technology	Open standards	User authentication	DRM	Web archiving
Commercial opportunity	-	Payment for access	Payment for ownership	-

Table 2: Four pillars of the public sphere (commercial ones in grey)

4. Conflicts within the public sphere

The job of policy-makers in upholding the public interest in this context is made difficult because of the tendency of these different models of information flow to come into conflict with one another. As discussed earlier in this paper, it is not clear where the public interest lies, when neither economic evidence nor the normative ideals of the public sphere point in one easily identifiable direction. Rival visions of the public sphere have existed for centuries, often characterised by the conflict between an American ideal of free deliberation and democratic equality, versus a European ideal of cultural excellence and respect for heritage. Alexis de Tocqueville's famous writings on America in the early nineteenth century demonstrate the ambivalence a European feels in the face of a culture that maximises vibrancy and participation, but potentially at the expense of quality and memory.^{xix} Weblogs incite the identical debate: they may represent a glorious democratisation of publishing, but also a more ephemeral culture.

Pursuing this debate would take us well outside the scope of this paper. The more pressing dilemmas that policy-makers must confront are those which occur when commercial and non-commercial elements in the public sphere come into conflict with one another. We regularly hear the complaint that intellectual property extensions are eating away at public domain, commercialising content that should be part of our heritage. Meanwhile, rights-holders argue that the open architecture of the internet is putting their livelihood at stake, by enabling unauthorised copying of content. At the same time there is some economic argument for *weakening* commercial controls over information flows, given that markets thrive in vibrant public spheres where information flows freely, and monopolies are disbanded.

We need to understand these areas of conflict. Firstly, there is the conflict between the two dominant business models of the knowledge economy, the service model and the content model. Secondly, there is the knock-on effect of this, and the tensions it creates between economic goals and other public norms. And thirdly, there is the peculiar context of the internet, which produces stark contrasts between global openness and enforced closure, without grey areas in between, with consequent problems for legitimacy.

Service industries vs. content industries

As knowledge becomes more important to how we create wealth in our society, we become more used to paying for engagement with flows of information, including many of those on the internet. The question is, what sorts of information flows are we prepared to pay for, and which ones are we not? As Jeremy Rifkin argues, there is some evidence that western capitalism is shifting away from payment for ownership of goods, and towards payment for access to services and experiences. What is reasonably clear in amongst flows of information is that people are often unwilling to pay for both. They will buy a CD, but would not be willing to pay for access to the music on it. They will sign up to a broadband subscription, but may then resent having to pay for content once they are online.

There is a commercial battle going on between those providing access to services and those selling ownership of content. The internet has led to the birth of a number of very large companies whose revenue is linked directly to how many people use their service. Auction sites such as eBay, internet service providers such as AOL, search engines such as Google and portals such as Yahoo! are all entry points to online spaces, gatekeepers whose business models rely on people wanting to pass through in pursuit of something else. What it is that people are pursuing is for the most part of no interest to these companies, until it becomes illegal, but even then they are rarely liable. They exploit the open architecture of the internet and (with the exception of eBay) the amount of free content online to position themselves as helping hands for the user.

These service companies filter the internet for people, rather than create absolute barriers. Content industries and proprietary software producers, on the other hand, have a vested interest in preventing their products from entering the free-flowing world of the internet, be it filtered or otherwise. The

popularity of illegal file-sharing has demonstrated the public appetite for open exchange of copyrighted content, which means that content has to be either kept away from the internet altogether (difficult now that CDs and DVDs can be copied directly onto computers), or protected using DRM. High profile lawsuits have been filed against the most prolific file-sharers, while in the famous Grokster case a company was sued for supplying file-sharing software, despite the fact that they were not engaged in piracy themselves.^{xx}

It is no exaggeration to say that there are a number of content industries (such as music publishers) around today that would benefit if the internet were not such an open and navigable space. Nor would it be an exaggeration to say that there are a number of online service companies (such as ISPs) that would benefit if there were more or better free content online. Because people expect to pay *either* for access *or* for ownership, but rarely both, these sectors are often locked into a zero sum game, unless they choose to enter partnerships along the lines of AOL-Time Warner. This economic battle is one of the most decisive forces at work in the market for information.

Knock-on effects for the public sphere

This has far wider-reaching implications for the public sphere than the economics of it can capture. Table two outlined four individual pillars of the public sphere, with the two key commercial zones in the centre, and the two non-commercial zones on either side. As the two commercial models of information flow battle it out for supremacy, they each attempt to build greater public legitimacy by making moral appeals, based on the norms of the non-commercial genre of information flow that lies closest to it. Content industries claim that their enforcement of copyright is a noble attempt to defend cultural heritage, while service industries claim that their support for free exchange of information is a noble attempt to sustain democratic deliberation. Hence EMI will attack file-sharing by making reference to the timeless legacy of the Beatles, while Google will promote their brand with the idealistic corporate slogan 'Don't be evil!'. Neither side will admit publicly that it is acting according to its primary fiduciary duty, namely the maximisation of shareholder value.

The irony is that in their claims to be acting in the public interest rather than in private interests, these companies end up undermining those areas of the public sphere that they claim to be safeguarding. By extending copyright, and placing DRM around un-copyrighted material, content companies push ownership principles into areas of public domain that would otherwise be our collective heritage. And on the other side, portals, search engines and ISPs are able to commercialise spaces that would otherwise be open democratic or deliberative spaces – Google's decision to personalise its advertising to users, based on the content of their emails is a case in point.

While commercial sectors are struggling to survive through borrowing the language of the public interest, non-commercial sectors are doing the same through borrowing the language of the marketplace. Government and public institutions defend their territory through promising to 'add value' and generate intangible forms of 'capital'. Quantitative metrics are introduced into every corner of public life, be they monetary or non-monetary. The BBC's commitment to govern itself according to the measurement of 'public value' created is a clear demonstration of this.^{xxi} In an age in which commercial and non-commercial information flows are entangled with one another and often hard to distinguish, one will be often confronted with the bizarre state of affairs in which the boss of a major record label waxes lyrical about the qualitative merits of one of their leading bands but refuses to discuss money, while the head of a museum talks incessantly about quantitative metrics but refuses to discuss culture!

These are symptoms of the confused landscape, in which economic and normative imperatives are entangled. Policy-makers are most comfortable when there are win-win outcomes, in which commercial and non-commercial interests are upheld simultaneously. The idea of public value has been used for exactly this reason, in the hope of encapsulating a cluster of different goals, part economic, part moral and part democratic.^{xxii} But when even economic logic is internally contested, as it is in the realm of IP, it becomes that much harder to take confident policy decisions, built on public interest criteria.

5. The nature of the policy challenge

In the interests of analytical clarity, this paper has defined four genres of information flow which make up the public sphere: deliberation, services, content and heritage. Two of these are deemed legitimate areas for commercial activity, namely services and content, while the norms of the public sphere recommend that both participation in deliberative public spaces and access to shared heritage be freely available, as a matter of citizenship. This is not to say that the delivery of services or publishing of content can ever be entirely free of normative considerations. The existence of professions is testimony to how the public interest may be fed into the former, while publishers should act to pursue quality and not simply profit.

This typology of information flow, and the characterisation of the economic-normative ambiguity, works successfully in areas where distinctions between one information flow and another are physically and technologically defined. Where, for instance, we deliberate in a café, receive professional advice in an office, buy a DVD in the high street, and read old manuscripts in a museum, then specific revenue streams and normative distinctions are relatively safe. Government has the relatively easy task of over-seeing this.

But where all four types of information flow are all occurring via the same medium, namely the internet, then things get far more difficult. Where once there were several zones of the public sphere, with subtly different degrees of openness and closure, some acting for commercial purposes, others for public purposes, the internet introduces a cruder split between maximum openness, filtration through some third party, and enclosure using DRM. But these are simply the technical opportunities, and need to be harnessed for the public interest. At present, openness is exploited for piracy, while DRM is used to ring-fence content without prior public discussion or permission. The internet itself rarely offers the technical possibility of halfway houses between anarchy and control, so it falls to policy-makers and users to create these halfway houses normatively.

The challenges for policy, in upholding the public interest, can be defined as follows:

1. Balancing competing economic and normative priorities

Government plays a critical role in defining the boundaries of the marketplace in the information age. Upholding the public interest requires that both commercial and non-commercial zones of interaction are appropriately defended, for their own sake. Government has a responsibility to defend commercial actors, through the enforcement of IP and public education about it. Yet where commercial logic starts to intrude into the realm of deliberation, and reduces the inclusivity of public spaces and civil society, this not only corrupts the integrity of democracy, it undermines that social capital on which successful commerce and innovation thrive. Equally, where commercial logic starts to intrude into the realm of heritage and attempts to privatise it, this not only closes off important cultural resources, but reduces the stock of artefacts that can be adapted, learnt from and developed by new-comers to the marketplace.

There are economic reasons, in addition to other normative reasons, for preserving non-commercial areas of the public sphere, and defending public domain. But the logic of economics is not adequate to develop policy on issues as philosophically diverse as human rights, social progress, education and the interests of future generations. These, after all, are issues that are at stake in the way that information is controlled and released. It is tempting for governments to hide their moral and legal commitments behind economic reasoning, but they should resist the temptation if they are to be entirely honest and consistent in their commitment to certain values.

For this reason, the primary challenge for policy is to find better ways of moving between economic and normative discourses, without collapsing one into the other. In win-win situations, this may be a comfortable thing to do. But where trade-offs have to be made, there is a major challenge for policy-

makers in developing ways of taking controversial, oppositional stances with confidence. What would it take, for instance, for policy-makers to argue against a company's commercial interests on public interest grounds, and how would the argument be grounded and articulated? Equally, are there actions that policy-makers can take, to help resuscitate the normative foundations underlying professional services and publishing, as a counter-balance to the economic imperatives? The answer may lie in new metrics, such as public value or happiness, but it may also need to lie in qualitative discourses, be they traditional or new.

2. Regulating in conditions of ambiguous economic evidence

Although it is important that information policy is developed with a broader understanding of the public interest than economics alone can capture, government will naturally want to take into consideration where economic evidence points. The problem in an area such as IP is that economics reaches ambiguous conclusions, because the externalities involved are so complex. Many commercial actors in the current landscape may genuinely not know where their interests lie, or what constitutes value; as the economic sociologist Michel Callon argues, "the work of economists is becoming ever more arduous because the actors they are tracking are faced by non-calculable decisions".^{xxiii} Many highly respected economists have argued that it is impossible to establish conclusively what the optimal length of IP terms should be, given the variables involved, and the fact that information is both an asset to be traded, and a condition of open and competitive markets in the first place.^{xxiv} In less abstract terms, it is clear that there is one set of companies that benefit from more open forms of information flow, and another that benefits from less open forms of information flow, so depending on the make-up of a particular economy, there is no obvious path to economic well-being.

Regulators have various options in the face of this sort of situation. The first would be to take sides in this economic conflict, as a form of tacit industrial policy. For instance, policy-makers could decide that the need to push broadband uptake meant that increased piracy was a price worth paying. Alternatively, government may act as the American Supreme Court did with its *Grokster* ruling, and crack down on innovations which put content industries revenues at risk. A decision such as this would need to be taken with careful attention to a nation's industrial base, not to mention those of its competitors.

The second is to work even harder at what may not be intractable economic problems after all. In particular, the economic benefits of open access publishing may be more graspable than they initially appear. At any rate, correlations between economic performance and non-commercial assets (e.g. education, trust, social capital) may be demonstrable. Even if no hard and fast answers are reached, this is certainly preferable to the unthinking assumption that companies themselves know what is best for the economy.

The third is to quantify a broader range of assets than classical economics has traditionally done, along the lines of the 'New Economics'. This has been done by the environmental movement in similar circumstances. From this perspective, we all depend on public assets in both our commercial and our non-commercial lives, and so activities that put those assets at peril are short-termist and economically sub-optimal. The question is how this value can be fed into economic equations, and the answer is very often that it can't. However, it can be useful at least to quantify one particular aspect of the public sphere (for instance, carbon emissions in the case of environmentalism) at least so as to make the trade-offs clear, as decisions get taken.

And finally, there are advantages in conducting economic reasoning in as public a fashion as possible, so as to benefit from a broader range of perspectives and evidence bases, but also so as to build the legitimacy of the conclusions. In circumstances where reasoning is vigorously contested and ambiguous, democratic processes are necessary in order to win acceptance from the side of a debate which is defeated on an issue.

3. Expanding the public sphere?

As commercial zones of the public sphere expand, one option available to policy-makers is to seek ways of expanding non-commercial zones, through the use of public money. One example of this would be OfCom's recommendation that the government set up a publicly funded 'Public Service Publisher' for a converged media landscape. More obviously, and as already discussed, publicly funded bodies may choose to release content and heritage into public domain, using Creative Commons and similar licenses. A Creative Archive License Group, made up of the BBC, Channel 4, British Film Institute and Open University, exists to release content into the public domain that is produced by these public institutions. The same logic is occasionally used to suggest that public sector IT infrastructure should be built around open source software, so that public expenditure releases code back into the public domain, as well as procuring a product.

The BBC is a prime mechanism for the expansion of the public sphere in an age of information capitalism. On the heritage side, its creative archive intends to release content into public domain, for the purposes of the user. On the deliberation side, its online spaces and activities in civil society create new, non-commercial spheres of deliberation. Yet these normatively motivated activities do not escape economic questioning. Two economic questions in particular recur time and again. Firstly, how does this expansion of the public sphere impact upon those commercial operators who rely on network closure for revenue. Independent producers, who are not in a financial position to give away their content for free, feel imperilled by what the BBC is intending to do. Secondly, how does this expansion of the public sphere potentially benefit those who have not paid for it, namely Britain's competitors overseas? To alleviate this second fear, the BBC's Interactive Media Player, through which users can download recent TV and radio content that they have missed, will only work within the UK.

Expanding the public sphere in this way is problematic, given the crudeness of the tools available online. Consider the contrast between an online archive and a physical library. The British Library's premises in North London offer a subtle blend of benefits, some commercial and some non-commercial, some local, some national and some international. While its core purpose may be the preservation of heritage on behalf of the British public, it can cope with these other functions. To build an online archive, on the other hand, one must take crude decisions between global openness and closure. A user is either authorised or not authorised, a piece of content is either free or restricted. In the offline world, these boundaries are more fluid; online, they create much starker dilemmas for policy.

4. A reordering of the public sphere?

The final question for policy-makers is whether existing normative distinctions between deliberation, services, content and heritage should survive, or whether changes in technology mean they should be altered. There are already ways in which current norms are shifting as a result of changes in ICT. For instance, the notion of intellectual property was traditionally rooted in the idea of a single author, whereas there are now various areas in which content is created by a wide plurality of contributors. These may currently be remunerated through employment contracts, but there is no reason why this couldn't change.

The most radical opportunities available to information policy developers is to renew the normative categories of the public sphere for the digital age. For instance, could open source models represent new opportunities for public collaboration or engagement? Addressing these issues involves looking at the technology, understanding how its being exploited, and developing the laws, customs and support to defend practices that are both productive and public-spirited. At the same time, this may imperil profitable areas of the economy, and therefore be deemed contrary to the public interest.

ENDNOTES

ⁱ The term 'normative' is used to describe the features of society that regulate human behaviour. This includes moral codes, traditions and laws. The economic logic of the marketplace represents a form of normativity, though this is strongest where the marketplace operates so as to minimize rather than maximize social turbulence.

ⁱⁱ W. Davies (2005), *Modernising with Purpose: A Manifesto for a Digital Britain*, Institute for Public Policy Research

ⁱⁱⁱ See R. Barbrook (1998), 'The High-Tech Gift Economy', *First Monday*, Volume 3 Number 12 (December 1998)

^{iv} See T. Maxwell (2003), 'Towards a Model of Information Policy Analysis: Speech as an Illustrative Example', *First Monday*, volume 8, number 6 (June 2003),

^v DRM methods make it technically impossible for pirated content to be used, often through adding a 'water mark' to content which identifies it, or through encrypting content, with an appropriate code required to decrypt it.

^{vi} It is clear that one of the most important outcomes of pervasive ICT is the tendency to record a great deal of what would traditionally been ephemeral, and to put at risk artefacts that might once have been preserved in far more durable formats. Digitisation therefore affects cultural time horizons, to make us more mindful of events in the recent past, but perhaps less mindful of events in the distant past.

^{vii} For evidence linking social capital to competitiveness, see R. Burt (2000) 'The Network Structure of Social Capital', University of Chicago and R. Putnam (1993) "The Prosperous Community: Social Capital and Public Life," *The American Prospect*, no. 13, Spring, 1993, 34-42.

^{viii} For one of the definitive texts on information asymmetries, see G. Akerlof (1970), 'The market for lemons: quality, uncertainty and the market mechanism', *Quarterly Journal of Economics*, 84, pp. 488-500

^{ix} K. Arrow, 'Economic welfare and the allocation of resources for invention', in R. Nelson (ed.) (1962), *The Rate and Direction of Inventive Activity*, Princeton University Press

^x J. Rifkin (2000) *The Age of Access: The New Culture of Hypercapitalism, Where All of Life is a Paid-For Experience*, Jeremy P. Tarcher p. 10

^{xi} See J. Ewing (2003) 'Copyright and Authors', *First Monday*, volume 8, number 10 (October 2003),

^{xii} It is a little known fact that *The London Review of Books* is subsidised by public money

^{xiii} See for instance Lulu at www.lulu.com

^{xiv} See 'The Long Tail', *Wired*, October 2004 and related blog at <http://longtail.typepad.com>

^{xv} Ibid

^{xvi} See 'War of the Words' *The Observer*, 18th September 2005

^{xvii} The term 'public domain' refers specifically to information that lies outside of the bounds of intellectual property, and is therefore available for public use. It would be consistent to say, therefore, that 'public domain' is one component of 'the public sphere'. Equally a copyrighted novel, say, is part of 'the public sphere' but not in 'public domain'. See J. Boyle (2003), 'The Second Enclosure Movement', *Law and Contemporary Problems*, vol 66:33, February 2003, pp. 33-74

^{xviii} G. Mulgan & T. Steinberg (2005) *Wide Open: Open Source Methods and their Future Potential*, Demos

^{xix} A. de Tocqueville (1998) *Democracy in America*, Wordsworth Editions Ltd; see also R. Kroes (1996) *If You've Seen One You've Seen the Mall: Europeans and American Mass Media*, University of Illinois Press.

^{xx} 'File-sharing suffers major defeat', BBC, 27th June 2005

^{xxi} BBC (2004), *Building Public Value: Renewing the BBC for a Digital World*

^{xxii} See G. Kelly et al (2002) 'Creating Public Value: An analytical framework for public service reform', Strategy Unit

^{xxiii} M. Callon (ed) (1998), *The Laws of Markets*, Blackwell, p. 263

^{xxiv} S. Grossman & J. Stiglitz (1980), 'On the Impossibility of Informationally Efficient Markets', *American Economic Review*, 70 pp. 393-404 (1980)