

Rights and equity in the democratic construction of knowledge

Julian Fox sdb

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Part 1 Establishing a platform

Introduction

Let's begin with two very different examples from real life, approximately 100 years apart. The first of these comes straight from the Salesian tradition – an excerpt from a Circular written by Don Bosco on 19th March 1885. I have re-arranged this excerpt a little to reflect the lyrical and moving contents of this poetic plea:
{present as slide}

...It can even enter homes
where the priest cannot.
The dubious will
take it as a gift
or remembrance.
There is no blush in the offering of it.
Neglected, it does not feel troubled.
Read, it calmly teaches truth.
Scorned, it does not lament the fact,
but leaves a lingering regret,
sparks desire to know the truth
which it is disposed, always, to teach.

At times it gathers dust
on a table,
in a bookcase,
given thought by no one.
Come a time, however,
of loneliness,
sadness,
boredom,
need for escape,
anxiety about the future,
and this faithful friend

casts off its dust, unfolds, multiplies
the conversions of Blessed Columbinus,
Saint Augustine and Saint Ignatius.

Ever polite with those afraid through human respect,
it speaks to them without hint of suspicion.
With good people it is a familiar thing,
ready to talk things over;
it accompanies them
everywhere,
any time...

In a family,
if the intended one does not read it,
then a son or daughter,
friend or neighbour
does.

In a village,
it falls into the hands
of a hundred or more.

In a city,
God alone knows
the good a book produces -
in a bookmobile,
amongst a group of workers,
in a hospital,
as a pledge of friendship given...

And the second example: have you ever had this experience? You are seeking information on the WWW and come across – this!¹ {present as slide}

Clearly what we have are two distinct approaches to knowledge! One suggests that the wider the access, the better off people will be. The other simply blocks the seeker probably for financial motives.

In the course of this address I wish to plot our way between the two poles that we have just experienced, and the two examples also offer a small indication of some of the factors involved. The religious and the secular, for one thing. For quite some time now I have been personally involved in attempting to introduce two discourses to one another – the discourse of faith and the discourse of the technical, digital and computer world. I made no excuses for doing just this when I wrote *Digital Virtues*². Some have asked me why I addressed this book to such a narrow audience – members of Institutes of Consecrated Life. It is because I believe most strongly that this group of human beings, all or almost all of them heavy producers and users of all things digital, have a duty to bring their own values and reflection to these tasks – for their sakes and for the sake of the world. It must be part of their dual passion for God and for humanity.

1 Example of <http://www.dbcde.gov.au/resources/codes/403.html> plus a photo of the plant in question. The reference forbids access to botanical knowledge of this rare plant in the Canary Islands.

2 Julian Fox, *Digital Virtues*, 2007, cf. www.lulu.com id:1021109

Not an expert

I will be trying to do this again today, but widening my audience somewhat. It is perhaps the main contribution I can bring to the task I have been given – for I am not an 'expert' in any shape or form, in the digital world. I have, I like to tell people, never been to a computer class in my life! Having said that, I will make just one claim. The World Wide Web was layered onto the Internet in 1989 by the Englishman, Sir Timothy Berners Lee. I began building my first website, and indeed the first website in the Salesian world, in 1991. There were no programs to help one in those days. There was just HTML 1.0. I was convinced of the value of the WWW for a country and a Province where it took me 10 hours to fly from the easternmost point of the Province to the westernmost point. I sensed at the time what Tim Berners Lee has more recently said of his efforts:

When I proposed the web in 1989 the driving force I had in mind was communication through shared knowledge and the driving 'market' for it was collaboration among people at work and at home.³

As the then provincial in Australia, I had also bought and installed the second fax machine to be used in the Salesian Congregation – the other one having been purchased by the UPS in Rome at the time. This was just twenty years ago. I have twenty years of hands-on digital experience. That is my single technical claim. Fortunately, democracy is not a place where only experts matter – otherwise it would be a meritocracy. Experience can play its part too.

The topic at hand

The task is to address the question of equity (which I understand to mean something along the lines of fair treatment) in the democratic construction of knowledge. It is pretty obvious to anybody on the planet that there is neither equal provision for nor equal access to knowledge, even within the most democratic of nations, whichever nation claims to be that.

The two examples I began with already illustrate the kinds of issues that might be involved: discussion of the collective nature of knowledge - and indeed knowers - involves questions of epistemology and pedagogy. Don Bosco's epistemology and pedagogy begin to show through in the very words he chose to make his point about a good book:

Read, it calmly teaches truth.
Scorned, it does not lament the fact,
but leaves a lingering regret,
sparks desire to know the truth
which it is disposed, always, to teach.

In the second of the two examples I gave earlier, market forces are clearly dominant. A question that arises from both instances is the extent to which knowledge, information, human creativity can be or should be at the service of humanity, and how or if we need to regulate the process of putting them at the service of human beings generally. That is a question of rights, amongst other things.

But these are all questions that you can read in the preparatory materials for this Congress. We need to move forward by seeking some solid ground for building up responses to them.

³ Tim Berners Lee with Mark Fischetti, *Weaving the Web*, Harper San Francisco 1997, p. 162

Establishing a discourse framework

My academic background is in linguistics, especially applied linguistics and discourse. It is one of the reasons I want to attentively link technocratic and religious discourse, because I believe they can inform each other. Without this concern we would be left only with technocratic discourse, which will tend to dominate, simply because the technical nearly always attracts, and immediately. The religious, based as it is on the grass-like growth of the Kingdom of God, requires depth and patience to be observed. Technocratic discourse also threatens democracy in real ways in a globalised world, because it cuts off what is beyond its immediate narrow interests. It tends to represent the interests of business and technology rather than wisdom, culture, the environment, 'the other', and much of what the Kingdom of God stands for.

The challenge is to formulate a discourse that assists a Christian formation of good, true and faithful lives in the light of the rising ascendancy of techno-science as the formative cultural factor. Do I mean a counter discourse? I mean that telling the story with our Christian vocabulary and grammar may enable other quests for the good and true, and this is especially so for the young people whom we educate. I am trying to tackle the kind of question asked by bio-ethicist Ronald Cole-Turner when he asked:

Can theology—that communal process by which the church's faith seeks to understand—can theology aim at understanding technology? Can we put the words God and technology together in any kind of meaningful sentence? Can theology guess what God is doing in today's technology? Or by our silence do we leave it utterly godless? Can we have a theology of technology that comprehends, gives meaning to, dares to influence the direction and set limits to this explosion of new powers?⁴

I would like to do more than link two discourses. I also think it is important, for this discussion, to critique some of the existing discourses. In *Digital Virtues* I made the point that the discourse of 'virtual reality' has successfully colonized a range of other discourses in the space of 20 years.⁵ Today it is not virtual reality I am so much interested in but two other discourses extremely pertinent to our topic: on the one hand the separate but linked discourses of the *Free Software Movement*⁶ and the *Open Source Initiative*⁷ which between them offer us what is tantamount to an ideology concerning issues like the legitimacy of the technocratic society, the democratization of technology, public discussion of technological policies, freedom, liberty and community; on the other hand the discourse which one could argue is one of the dominant paradigms of our time – the so-called 'Information Society'.

With regard to the first item, I refer to a discourse analysis study by David M. Berry, researcher and lecturer at Swansea University UK.⁸ Berry is actually looking at the way the OSI movement is offering a more effective order of discourse to the technologist community than the FSF. But he is also saying, in between the lines and occasionally directly, that we need to be very careful about the master narratives emerging in society through movements like these. We need to be aware of the threat of neo-liberal discourse colonizing other discourses – and I include here religious discourse – which employ terms like freedom, liberty, community. It stands to reason of course, that this would be happening, but discourse is one of the most subtle elements in human activity and if we are not careful, wholesale colonization of our thinking occurs before we are even aware of it!

4 Ronald Cole-Turner, 'Science, Technology and Mission' in *The Local Church in a Global era: Reflections for a New Century*, eds. Max L. Stackhouse, Tim Dearborn, and Scott Paeth, Grand Rapids, Win B. Eerdmans, 2000, pp 100-112

5 Julian Fox, pp 18-19.

6 Chief proponent and indeed founder – Richard Stallman.

7 Chief proponent and founder – Eric Raymond.

8 D.M.Berry, 'The Contestation of Code: a Preliminary Investigation into the Discourse of the Free/Libre and Open Source Movements', *Critical Discourse Studies*, Vol 1. No. 1, p.1 2004.

The other question is Information Society discourse. Castells⁹ is a prominent proponent of this discourse. We need to be wary of this also. Nicholas Garnham is a Marxist academic, now retired, in the field of media studies. His view is that the argument that Information and Communication Technologies have caused an epochal shift in economy and society is a specious one. He takes Castells to task for lumping too many quite separate and distinct technologies and their impacts under a single master narrative of the Information Society.¹⁰ We do not have time to go into all this, but I think the two examples I have given you briefly highlight the need to carefully examine dominant discourse in the areas we are examining today, and in our case to rediscover the implications of the discourse of Catholic Social Teaching for these areas.

Some of you would know of Jürgen Habermas, a living German philosopher and sociologist in the tradition of critical theory and American pragmatism, possibly best known for his work on what he called 'the public sphere'. His theories of discourse and communicative action have given us new perspectives on law and democracy. But his opus magnum *The Theory of Communicative Action*¹¹ was not kind to the role of religion in the public sphere, though he believes that communication, information and knowledge are essential to contemporary society and are the starting point for public dialogue about the ideas and vision needed to shape the concept of sharing in our globalized world.

For much of his life Habermas has been neo-Marxist and has repudiated the role of religion in the public sphere. But in 2007 he held a spectacular discussion with the then Cardinal Joseph Ratzinger. Two great discourses came together under the title of the discussion: *The Dialectics of Secularization*.¹² It was a discussion about the role of reason and religion in a free society. Jürgen Habermas surprised many observers with his call for the secular society to acquire a new understanding of religious convictions. Habermas discusses whether secular reason provides sufficient grounds for a democratic constitutional state. Joseph Ratzinger/Benedict XVI argues for the necessity of certain moral principles for maintaining a free state, and for the importance of genuine reason and authentic religion. Both men insist that proponents of secular reason and religious conviction should learn from each other, even as they differ over the particular ways that mutual learning should occur. Habermas's 'religious turn' is interesting.

In a speech published only in April of this year – which he gave on March 15 2007 at the Nexus Institute of the University of Tilberg, Netherlands, Habermas concluded with this sentence:

So, if all is to go well, both sides, each from its own viewpoint, must accept an interpretation of the relation between faith and knowledge that enables them to live together in a self-reflective manner.

He has repeated these ideas again in the Istanbul Seminars 'Dialogues on Civilizations' held from 2-6 June 2008, since his interest is not limited to the Christian-secular alone, but to all the historical religions and the secular. It is a grounding principle, I suggest, in discussion of questions of right and equity in the democratic construction of knowledge. The issue is not whether religiously-minded people like ourselves might be unfairly treated in any discussion of information, knowledge and democracy, but whether democracy can survive if it does not take religious points of view seriously.

9 Manuel Castells is one of the world's most highly cited social science and communication scholars.

10 Nicholas Garnham, 'The Information Society: Myth or Reality?', Bugs Globalism and Pluralism Conference, Montreal September 19-22, 2001

11 Jürgen Habermas, *The Theory of Communicative Action: Reason and the Rationalization of Society*, Boston, Beacon, 1994

12 Joseph Ratzinger and Jürgen Habermas, *The Dialectics of Secularization: Reason and Religion*, Ft Collins, CO, Ignatius Press, 2004

What might this sound like in practice?

In Luke 4:18-19 Jesus proclaims,

“The Spirit of the Lord is on me, because he has anointed me to preach good news to the poor.

He has sent me to proclaim freedom for the prisoners
and recovery of sight for the blind,
to release the oppressed,
to proclaim the year of the Lord’s favor.”

In the last few years the term 'digital divide' has been used to describe a restructuring within Western societies and between developed nations and two-thirds of the world. The concept describes the fact that populations are dividing into those who are 'informationally rich' and those who are 'informationally poor'. There is an expectation within Western society that IT is not just something extra to everyday life but that it has become an expected necessity. Issues to do with poverty, debt and other forms of disadvantage work to establish 'information poverty' within society. In the words of Caritas Aotearoa New Zealand, we must, as Christians: “face the challenge of making sure that the Information Society is not purely the reserve of the privileged and the wealthy”.¹³

The New Zealand government identified the following groups within New Zealand society that they think will struggle to participate in a society that becomes increasingly techno-cultural. These include:

- Maori
- Pacific Island Peoples
- Those with lower incomes
- Sole parents
- People with low or no qualifications
- Those who are unemployed or underemployed
- Those in locations without a sound telecommunications structure, such as parts of rural New Zealand.

I choose this example because I am from this region and have worked in the Pacific Islands as a missionary. But you could multiply the example for many parts of the world. When viewed in light of the Luke 4 passage it is obvious that the Church and individual Christians, especially those working in IT areas, are called to challenge practices, policies and technologies that disenfranchise individuals and communities. Not only that, they are called to assist in the liberation of those communities and peoples from being 'informationally poor' and that means addressing the underlying problems as well as the techno-cultural ones, such as education and access to IT resources.

We assist in this liberation by action that is based on solid principles.

¹³ Caritas Aotearoa New Zealand, 'The Digital Divide: Poverty and Wealth in the Information Age', *Social Justice Series*, Wellington, Caritas Aotearoa New Zealand, 2000.

Catholic Social Teaching, principles of social justice

My watch has an analog display, not a digital one. I prefer it that way. Each hand on the watch shows the present moment by relating that to the past and the yet to come. A digital display merely shows a momentary second which is then relentlessly replaced by the next.

Analogy is the idea that what matters is relationship, connectedness, and context: A is to B, as C is to D. The Church makes its analog contribution by enhancing local communities where relationships can flourish, by making massive contributions to the common good by acts of charity and solidarity, by contributing to the common good with insights from this action and from long tradition, and finally by endowing society with beauty through artistic creation, literature. It has much to offer.

The Church's Social Teaching offers us firm and solid principles for this discussion on the democratic construction of knowledge. Let me list the points first, then take them for further consideration.

Essentially, there are four clear principles in Catholic Social Teaching that I would like to tie in with certain information and knowledge issues in our digital world:

- the *dignity of the human person* – something intrinsic to each human being
- the *common good* – the social conditions for our self-realisation, individual and collective. It is a good, not an evil, it is not automatic, it is superior to special groups and not just the sum of them all, and its interest is in the whole person.
- *solidarity* – the virtue permitting us to share
- *subsidiarity* – the coordination of activities of society

Human dignity. As stated by WSIS in Geneva in 2003 'Communication rights are intrinsically bound up with the human condition and are based on a new, more powerful understanding of the implications of human rights and the role of communications. Without communication rights, human beings cannot live in freedom, justice, peace and dignity'.¹⁴ Recently I was teaching some young African White Father missionaries working in Tunisia. One of them pointed out to me that it is of little use speaking of the various freedoms expressed in the 1948 Human Rights Charter in the Tunisian context when the most basic right to communicate is interfered with at every level, including a certain level of fear.

Communication rights are a crucial element in enabling societies and communities to tackle injustice and inequality and to forge new and better ways of organizing just social relationships where sharing becomes a norm. Intellectual property rights, knowledge-sharing and pluralism are communication rights issues, once we have tackled the most important basic elements such as the 'freedoms' of article 19 of the Universal declaration of Human Rights, and the 'fears' that human individuals and groups cultivate in myriad forms to oppress their fellow kind. [There is still dispute about whether communication rights are individual or collective. Perhaps if we use the idea more as a framing tactic, keep it broad and undefined, it has power too.]

A basic reference for Catholic Social Teaching is the *Compendium of the Social Doctrine of the Church* (available on the Vatican website) by the Pontifical Council for Justice and Peace.¹⁵ It was published in hard copy in 2004. In it we find a section on human rights and the following statement:

¹⁴ Statement on Communication Rights endorsed at the World Forum on Communication Rights, Geneva 11 December 2003, as part of the World Summit for the Information Society (WSIS) meeting in Geneva.

¹⁵ http://www.vatican.va/roman_curia/pontifical_councils/justpeace/documents/rc_pc_justpeace_doc_20060526_compendio-dott-soc_en.html

152. *The movement towards the identification and proclamation of human rights is one of the most significant attempts to respond effectively to the inescapable demands of human dignity*[302]. The Church sees in these rights the extraordinary opportunity that our modern times offer, through the affirmation of these rights, for more effectively recognizing human dignity and universally promoting it as a characteristic inscribed by God the Creator in his creature[303]. The Church's Magisterium has not failed to note the positive value of the *Universal Declaration of Human Rights*, adopted by the United Nations on 10 December 1948, which Pope John Paul II defined as “a true milestone on the path of humanity's moral progress”[304].

It is, then, in the context of human dignity and in the language of human rights, that we can and should develop our thinking on the democratization of human knowledge. Even though some of the players in the 1948 Declaration of Human Rights were no longer believers, the reality is that the language of human rights is underpinned by a Christian anthropology. This is its historical basis. The already quoted *Compendium* is quite explicit about this at one point:

557. *The social and political involvement of the lay faithful in the area of culture moves today in specific directions. The first is that of seeking to guarantee the right of each person to a human and civil culture* “in harmony with the dignity of the human person, without distinction of race, sex, nation, religion, or social circumstances”[1168]. This right implies the right of families and persons to free and open schools; freedom of access to the means of social communication together with the **avoidance of all forms of monopolies and ideological control of this field** [my emphasis]; freedom of research, sharing one's thoughts, debate and discussion. At the root of the poverty of so many peoples are also various forms of cultural deprivation and the failure to recognize cultural rights. The commitment to the education and formation of the person has always represented the first concern of Christian social action.

Amongst other things, you can see here another clear principle of Catholic Social Teaching emerge – the preferential option for the poor.

The common good. I wish to ally this concept with what, in the world of knowledge and information these days is called the 'digital commons'. They are not the same thing of course. John XXII, in *Mater et Magistra*, famously described the common good as 'those social conditions which favor the full development of human personality' [n. 65].¹⁶ So it's not a thing but a set of conditions. And as for the Commons:

The commons is a place where the entire community of creation is energized, rather than impoverished or exploited. Truly, the commons exists for the common good, providing common goods for the benefit of the world.

The commons thrives when there exists an atmosphere of "common sense" nurtured by education, formation, and beauty...realities that are best sustained by diverse cultures and vibrant arts. When these wellsprings of education and arts are flourishing, there is a firm basis for an economy and an ecology of sustainability. At its most authentic level, the commons appears as an ongoing conversation, and an invitation to conversion. The commons can be neither established nor maintained by special interest groups, but only by "common interest" and its subsequent partners: sacrifice and humility. The law of the commons is generativity, not greed, and the fundamental actions in the commons are based on dominion and not domination...on home-building and husbandry that preserve the world of being. ...¹⁷

The issue of a global commons and free flow of information is crucial. I prefer, then, when speaking of Software Libre, to use a complete term, FLOSS-C, where 'C' stands for 'Commons'.

16 http://www.vatican.va/holy_father/john_xxiii/encyclicals/documents/hf_j-xxiii_enc_15051961_mater_en.html

17 Darryl Birkenfield, 'Reclaiming water as a commons', www.ogallalacommons.org/water3.htm 2003

Solidarity and subsidiarity. Solidarity recognizes the inequality of our gifts, abilities, tasks and responsibilities. But it is not a sterile thing! It is a complete anthropology which says, to try to put it in the simplest of terms, that a fundamental dimension of human existence is co-existence. You only have to read *Gaudium et Spes*¹⁸ to see a detailed presentation of this anthropology. The term 'solidarity' is common to both religious and secular discourse, as is 'subsidiarity', but John Paul II left us in no doubt that he thought solidarity to be a Christian virtue. Subsidiarity, if we accept the Christian underpinnings of solidarity, is not about maximizing individual autonomy, or simply the devolution of government authority, but is a framework for ordering society which allows solidarity's vision of the human person to be realized.

There is one aspect of the principle of subsidiarity that can particularly interest us in the current discussion on the democratic construction of knowledge. It is a point made recently by the Archbishop of Dijon, Roland Minnerath, outlining elements of Catholic Social Teaching principles for the May 2008 meeting of the Pontifical Academy of Social Sciences.¹⁹ Firstly he says that we should add the principle of participation to that of subsidiarity:

Participation is the expression of the equal dignity of persons and their common vocation to take in hand the matters that concern them. The principle of participation, like the principle of subsidiarity, is the translation into organisational terms of the four conditions for realising the common good (liberty, truth, justice, solidarity).

And then in a section on the relationship between solidarity and subsidiarity he says:

Subsidiarity is not obtained through decentralisation, which is a concession from the higher level of organisation, but by an appeal from the lower level to the higher levels of social organisation

We see here the right of ordinary members and groups of human society to play their part and indeed to initiate things with regard to the society in which they live.

Technology – the missing link

Of course I believe that Catholic Social Teaching provides us with some solid principles to work with. But I also see something it does not do. In *Digital Virtues*, I talk about 'software' as the missing link in the Church's language.²⁰ I would like to extend that idea. Not just software, but the whole field of technology!

There is an acknowledgment in Church teaching that technology is our context, that it is of moral concern, that it is involved in the common good, but nowhere is there sufficient guidance for us to make technology a true servant of the common good, unless it is possible to extract this from 25 or more years of Papal teaching, mostly John Paul II's as represented in World Communication Day messages and Encyclicals. Technology is conceived of as a clear trend in human history, with social structures reacting to it. But technology is made by humans and humans therefore hold responsibility, personally and institutionally. There needs to be a proper theory of technology based on Christian principles. The best we have is a kind of reactive theory, after technological developments have begun to affect us. We need a more proactive theory of technology. As we will see shortly, the marketplace is being fundamentally altered by technology – think of the internet, Wikipedia, Software Libre,

18 http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_cons_19651207_gaudium-et-spes_en.html

19 Roland Minnerath, 'Les principes fondamentaux de la doctrine sociale. La question de leur interprétation'. Personal correspondence with Michel Bauwens, founder of the Foundation for P2P Alternatives and invited member of Pontifical Academy for Social Sciences in May 2008.

20 Julian Fox, p 34ff

networks on the one hand, and Intellectual Property issues deeply mired in the interests and activities of the major IT Corporations on the other.

Catholic Social Teaching recognizes technology as pervasive. At the moment, however, it goes little further. I cannot claim that *Digital Virtues* is anywhere near the level of CST, but I can claim that there is almost nothing of its kind in print. We need many more examples of efforts to apply our Catholic belief and tradition to technology. **{present on slide}** Now is not the time to develop this, but let me simply give you a list of what Daniel Lynch regards as elements of Catholic thought that should be included and extended. You will see that they touch on many of the items I have already spoken of. Is this a task for one of our Universities?²¹

- A Catholic Anthropology – man as social, historical, fallen creature with intrinsic dignity, God-authored and God-seeking
- Social institutions as earthly facilitators of personal development; historical constructions with a transcendental goal
- The burden on humans to construct societies which are good – the common good – which is historically contingent, never complete or perfect, but necessarily oriented to the elevation of persons if it is to be authentically “good”.
- The Gospel imperatives in the Last Judgement (Mt.) and the Second Great Commandment – enduring social imperatives to be played out in history
- The “Apostolate of a Trained Laity” as earthly implementers of the common good.

Within this construction we will have to develop some foundational ideas. Necessary elements of a response include:

- a new vocabulary which allows us to speak and reason more cogently
- an acceptance of new forms of “governance” in the “new” vacuum of authority
- a new sense of institutional ethics to order our actions within same
- a public theology to convert ethics into authentic human norms. Is there truth to be found in ethical assertions? Or any standard of truth? Or, are we just exploring complexity? developing arbitrary consensus?
- a theoretical approach to corporate and government priorities; relation of people, professions, and communities of faith to those institutions; understanding of the global marketplace as a social institution.
- a reinvigorated notion of the Common Good as the object of social constructions, and the proper role of technology in same.
- Some specific interpretation of the Apostolate of the trained laity in terms of technology; in particular, the professional obligation of engineering.

I would like to add a dot point to this list – the application of Catholic Social principles to the movements for

²¹ Some statistics from Daniel R. Lynch, Dartmouth College, referred to in 'Technology and catholic Social Thought', <http://www.shc.edu/theolibrary/cst.htm> : 1) *The Catechism of the Catholic Church* (1994) addresses technology only twice, in two paragraphs (2293-2294), out of over 2800. In both cases technology is conjoined with science and scientific research. 2) *The Compendium of Social Doctrine* (2004) is full of references to technology – 54 paragraphs out of 583 cited. This is not surprising, given the critical role that technology and technological organization has played in stimulating Catholic Thought. However, in an overwhelming percentage of instances, the word is conjoined with science and/or economy. It rarely has full, independent identity. And the various uses of the word reveal a multitude of referents – technology as subject or object; technological as adverb or adjective; the apparent distinction of technical (procedural?) from technological.

Software Libre and Open Source, and a comment on the anthropology issue: for so long in human history mankind has been structured around the notion of ownership – of land, goods. Personal ownership of property has been the measure of the person in society, certainly since the time of the ancient Greeks – and possibly long before that. Now things have shifted – access relationships as experienced in social networking, on the Web, are what matters. This is likely to be producing a very different kind of human being. We need to think about that.

Part 2 Tackling the issues

Knowledge and information

However, with the existing solid social principles established we can now tackle some of the issues we face. These principles help us to be clearer about the terms we are using. 'Democratization' for example. It does not mean only more access, more receivers, ever-expanding messages. Democracy involves rule which allow us to live together peacefully, and it also means a form of government that permits the full development of the human person. Because democracy is always fueled by vigorous exchange of ideas, it needs spaces where citizens can meet as equals. It is in such a context as this that we can talk about 'knowledge spaces', 'commons', 'virtual agora', which exist not to make decisions but to produce a mechanism of collective participation.

We can be clearer about what knowledge is. It is a human act. Only human beings know. Computers, networks and software are tools but they can never know something. [However, networks and relationships, especially community networks, are crucial – one of the key questions and challenges for a community is who owns knowledge and who can distribute it. It is a very important question and one we should be interested in]. You see, the dominant knowledge discourse is technocratic. There have been interesting studies made by two Australian researchers, on the basis of discourse analysis of a huge corpus of public policy documents – a corpus of 1.3 million words. They conclude that there is “a propensity in policy for resorting to technocratic, instrumentalist and anti-intellectual views of knowledge in policy”. They argue that “what underpins these patterns is a commodity-based conceptualization of knowledge, which is underpinned by an axiology of narrowly economic imperatives at odds with the very nature of knowledge. The commodity view of knowledge, therefore, is flawed in its ignorance of the social systemic properties of 'knowing’”.²²

You see, if we don't question the kind of discourse about knowledge that is all around us in the digital world, we fall into a serious trap. International law today assumes that knowledge is a commodity. Here is a classic hint of that from the director of IT Policy and Law, Cornell University (Tracy Mitano). *Webinar: Is Information and Knowledge Becoming a Commodity that Higher Education Cannot Afford?* When information and knowledge are commodities, they go onto the market. They can be sold, locked up, become items of exchange. I guess the issue is this, put simply. If I know something and tell you about it, I cannot say that I know it less. I have not lost something! In fact, the more knowledge is given away, the more it increases. On the other hand, if I have a commodity and give you some, then I have less. Knowledge and information, unfortunately, are changed into a commodity by valuing them not in themselves, intrinsically, but as instruments for something else.

Instrumentally valued knowledge can be made into a commodity through secrecy or monopoly, both of which

22 Graham, P. W. and Rooney, D. (2001) 'A sociolinguistic approach to applied epistemology: Examining technocratic values in global 'knowledge' policy'. *Social Epistemology*, 15 3: 155-169. Of similar interest is 'Knowledge, Economy, Technology and Society: the Politics of Discourse' by Rooney, available at http://209.85.135.104/search?q=cache:sRiep2sJj3wJ:www.leximancer.com/documents/WSIS_Telematics_and_Informatics.doc+leximancer+discourse+analysis&hl=en&ct=clnk&cd=3&gl=it&lr=lang_en&client=firefox-a

make it scarce. We commodify knowledge in many ways – by pegging it to some medium of exchange, perhaps – certificates and diplomas. Another way, and this is quite devilish when you think about it, is by creating a pseudo-scarcity of knowledge. This is done via an Intellectual Property regime which includes Copyright, Patents and Trademarks. The WTO and TRIPS agreements are really an effort to globalize a US approach to IP where information is simply another commodity and information technology (think software) is the gateway to the control of information. One suspects that the US Supreme Court, when it redefines property rights, does so in favour of the big IT Corporations.

Knowledge versus information

We also need to carefully distinguish knowledge from information. Put it this way. My computer already has 250 Gigabytes of storage. That is immense. With 1,000 Gb a human being could store everything he has ever read, every movie or TV show he'd ever watched. 1,000 Gb is eminently achievable in technical terms. With so much information potentially and even really available, how can we ensure that we can use it intelligently and wisely. As John Seely Brown puts it: “We need to pay very close attention to the distinction between information and knowledge because it gets to the heart of what it means to be literate in an age where we are flooded with information”.²³ Incidentally, Seely Brown goes on to talk about learning environments which enculturate into a practice as the way forward for ongoing learning and identifies Linux and Open Source as an excellent example of this. For one like myself who claims to have never been to a computer class in his life I can support this notion one hundred percent!

A Salesian addition

As a Salesian I would be interested in extending backwards just a little the decade usually chosen as the beginning of Catholic Social Teaching as a body of formulated teaching. Instead of the 1890's could we go back a little further to 1847 when Don Bosco wrote his *Giovane provveduto* and included reference to the phrase he developed from then on until his death as an expression of his mission: to make of poor and at-risk young people *buoni cristiani e onesti cittadini* (good Christians and upright citizens). It was a phrase he then re-formulated after 1875 and the first missionary expedition to the Americas as *civiltà e religione* (civilization and religion) or *bene dell'umanità e della religione* (for the good of humanity and religion). As Peter Braido, the Don Bosco scholar explains it, it was a unique educational manifest with a traditional flavour but virtually open to the new.²⁴ When you begin to read such discourses as that of Habermas in Istanbul on 'Dialogues on Civilizations', you see how open to the new Don Bosco indeed was! He had an idea of good citizenship requiring a lively sense of participation, involving rights and duties, freedom of religion, active religion, active civic engagement that may have begun in *Risorgimento* Italy, but which he extended to the entire world in actions and formulae that could translate into any culture in any time as has been clearly demonstrated over 150 years. But he came at things, in the true tradition of Catholic Social Teaching as we now know it, from the point of view of the poor and excluded who were, for him, certain groups of young people in particular. For anyone within the Salesian tradition, this becomes a powerful motivating programme which we need to bring to some of the most difficult issues of our time as they affect education, and this includes those already mentioned, plus others I will now add, to do with rights, equity and the democratic construction of knowledge.

Incidentally, I feel I have every right to extend the CST period backwards to Don Bosco, since that period is

²³ John Seely Brown: 'The social life of learning: how can continuing education be reconfigured in the future?' in *Continuing Higher Education Review* Vol. 66, 2002 pp 50-69

²⁴ P. Braido, *Prevenire non reprimere: il sistema educativo di Don Bosco*, LAS-Roma, 1999, pp 230-234

normally thought to have begun with Leo XIII's *Rerum Novarum*. The very same Leo XIII, who became Pope before Don Bosco died, held audience with the Saint on 9 May 1884 where he told him – and this is the important link, I think: “You [Salesians] have the mission to let the world see that it is possible to be a good Catholic and at the same time a good and upright citizen; that one can do much good for poor and abandoned youth in every age without going against the development of politics and remaining at the same time good Catholics”. It is a challenge I hope we have never forgotten.

The changed world of information

One of the great works on the information age, sometimes hailed almost ecstatically though possibly prematurely as a classic of the 21st century in the making is Manuel Castells' trilogy on the topic:²⁵

We live in a new world of information, Castells suggests, where networks replace hierarchical relationships. Work changes nature, processes of production and exchange expand spatially and notions of authorship alter. It is a world, he indicates, where if you are in the network you can share and over time increase your chances in life. If you are out of the network or switched off then your chances diminish since everything that counts is organised around a world wide web of interacting networks.

In a later book written in 2001, Castells makes this comment:

One might say, 'Why don't you leave me alone? I want no part of your Internet, of your technological civilization, of your network society. I just want to live my life.' ...If this is your position, I have bad news for you. If you do not care about the networks, the networks will care about you, anyway. For as long as you want to live in this society, at this time and in this place, you will have to deal with the network society.²⁶

Some people might choose to hide from the information age, but many others left in the dark spaces between the networks have no choice. They are excluded by the harsh logic of the information economy, in which they create no economic value. These are the ones, especially the young ones amongst them, we are interested in.

The Software Libre world

Open source, open content, software libre, a new culture of sharing, networked opportunities, non-market relations of production, new ideas in Intellectual Property management through GPL, Creative Commons: These are the kinds of realities we have been dealing with over these days.

I have no easy answers for the many serious issues that have been raised. I have only my own experience to bring to the questions. My Salesian experience on the one hand, which many of us share, and this includes experience as an educator, and my experience as an intelligent user of software. I believe in and use FLOSS in a

²⁵ Manuel Castells, *The Rise of the Network Society, The Information Age: Economy, Society and Culture*, Vol. I. (1996). Cambridge, MA; Oxford, UK: Blackwell, 556; *The Power of Identity, The Information Age: Economy, Society and Culture*, Vol. II. M. Castells (1997). Cambridge, MA; Oxford, UK: Blackwell, 461 pp., ; *The End of the Millennium, The Information Age: Economy, Society and Culture*, Vol. III. (1997). Cambridge, MA; Oxford, UK: Blackwell, 418 pp.,

²⁶ Manuel Castells *The Internet Galaxy: Reflections on the Internet, Business, and Society* Oxford, Oxford University Press, 2001

passionate and hopefully principled way. I think it has the potential to make a difference – and in my case it is making a difference.

FLOSS helps bypass some of the limits imposed by the IP regime. It is easy to adapt to various needs. I can demonstrate a classic instance of this with my adaptation of Greenstone Digital Library software to the needs of the Salesian Society. FLOSS is a positive form of globalisation, where people can make their own free contribution.

I believe that one of the crucial issues around the world, including in developing nations, is not so much that of access to technology. FLOSS can make that a possibility in many instances. A crucial issue is the way non-FLOSS approaches (the proprietary approach) force people to be dependent, passive users and not equal participants. The developed nations' dominance of information technology patents (software and hardware) and the way this is wrapped up by Intellectual Property rights forces this situation on many other parts of the world. The digital divide may not be so much about access to the box but the ability to know and use the language the box works in – I mean the source code in the first instance, since if there is no access to it, then people are definitely reduced in a deep way to 'read-only' or to not even be able to read at all! I also mean that when software patents are owned 'overseas', there is little incentive for locals. But unfortunately, I also mean that the technocratic world is dominated by English.

I would keep a close eye on the laudatory efforts of many individuals and groups to develop FLOSS options, but would counsel great care in any relationship with dominant social forces. Is it true that the OLPC will accept a Microsoft deal? Is the IBM/Linux partnership to be thoroughly trusted? A dose of healthy skepticism is always in order. Let's keep FLOSS subversive in the best sense of that word!.....

Moving to concrete action

But let me return to a theme I have already raised and rapidly draw this to some practical conclusions. In *Digital Virtues*, I suggested that we need to revisit and reinterpret some of the classic slogans of the Salesian tradition.²⁷ Already in this address I have spoken in these terms of Don Bosco's 'good Christian and upright citizen' as something to be re-interpreted in the light of Catholic Social Teaching and the dominance of technology, the digital, in our lives.

I hope that my efforts to tie all this in with an anthropological and theological stance can be seen as part of this re-interpretation. On 23rd April 2007, Fr Pascual Chávez, Rector Major of the Salesian Family, received a Doctorate *Honoris Causa* in Genova. In his *Lectio Magistralis* on that occasion, entitled 'Education and Citizenship', he made a number of comments that are relevant to what I have been saying today. Several of his fundamental guidelines for education have resonance here, for example:

1. The need to redefine the objectives of education, bearing in mind that 2,000 years of classical and Christian education offer an ever valid response: “the aim of education is the formation of a spirit capable of freely making judgements and becoming a responsible part of society”.
2. The need to follow a delicate balance between personal formation of the student and his or her encyclopedic information. Knowing is far more important than simply amassing information since only knowing can lead to moral responsibility and wisdom.
3. Education today means teaching people to educate themselves on an ongoing basis. In his address he spoke of the educational space that Don Bosco created and his belief that this required the greatest involvement of people, be they clearly Catholic or people of good will – today he would speak of a

27 Julian Fox, p. 156

network of positive forces.

Every one of these points made by the Rector Major is relevant to our discussion of rights, equity and the democratic construction of knowledge today in a pedagogical context.

But I suspect there is something that needs to be added. Part of the problem is that while there is a solid and valid 2,000 year tradition of classical and Christian education, this in itself does not ensure that our theory and practice of education (that is, of knowledge and learning) is fully meeting the challenge presented by the context and characteristics of knowledge in society today. There is the danger that we are preparing learners for a society that no longer exists. The point is already there in Fr Chávez' 2nd point about 'knowing being more important than simply amassing information', but it needs to be developed.

Hence the discussion of the 'democratic construction of knowledge' is timely, since this is the kind of context where networks, connections, making sense between fields, ideas, concepts, choosing what to learn and knowing the difference between the important and the unimportant are all a crucial part of an ecology of knowing and learning.

It is not all the discovery of the technological world. 'It takes a village to raise a child' is an African proverb, and it holds a similar truth. It's just that we have not yet fully realised this truth in many of our educational settings, nor have we become fully aware of how the 'global village' is busy raising our children via the Web.

To-do list

I want to leave us with a 'to-do' list. Tasks that are pending and without which we will not be able to contribute as effectively to society as we could, nor even respond adequately to the responsibilities we have as educators today. It is potentially a long and demanding list, of course!

- 'Communication through shared knowledgecollaboration among people at work and at home' was Tim Berners Lee's vision for the World Wide Web he created. How can we make this vision more real for our own use of the Web as an international Family involved in education of the young and the poor?
- We are called to challenge practices, policies, technologies that disenfranchise individuals and communities, as well as assist in the liberation of communities and peoples.
- The main Christian alliance for communication, one which to me seems sufficiently broadly-based and solidly principled, is known as the World Association for Christian Communication (WACC). It starts from asserting the basic right to communication and offers a set of principles. Could we subscribe to that statement of principles?
- Where do we personally and communally stand on the matter of FLOSS?
 - If technology and software are 'missing links' in Catholic Social Teaching, then it requires study and research to remedy this
 - Action must follow convictions – do we have policies, statements of institutional ethics in this regard?
- 'If you are in the network you can share and over time increase your chances in life' (Castells) – surely this is motivation for concrete Salesian action on behalf of the young who are in situations of either being 'locked out' or 'switched off'.
- 'Learning environments which enculturate into a practice' (Seely Brown). What more can we do as an international community of educators in the Salesian tradition to cultivate communities of practice where Software Libre is concerned, and learning networks that foster civic engagement, and ensure open access and accessibility?
- We are part of what is known as the Third Sector, the cultural sector, volunteer sector if you like. This sector is of crucial importance in the matter of the democratic construction of knowledge. In fact the First Sector (the Market) and the Second Sector (Government) depend on a strong Third Sector. The 1998 UNESCO World Culture Report put it this way:
- The cultural values which identify and link local, regional or national communities seem in danger of being overwhelmed by the relentless forces of the global marketplace. In these circumstances, questions are raised as to how societies can manage the impacts of globalization such that local or national cultures, and the creativity that sustains them, are not damaged but rather are preserved or enhanced.
- What can we do to help make the Third Sector more of a coherent, self-aware force for good (Don Bosco's idea of a vast movement) in local areas, especially poorer areas, that takes account of the opportunities offered by digital networks, Software Libre and Open Source approaches?
 - The emergence of a knowledge commons offers new models of sharing information, stimulating innovation. We have many possibilities open to us: digital libraries, open courseware..... can we add to the list?
 - If Software Libre is so useful and important, why is it that not everyone is using it? Amongst the answers (and by implication amongst things we can contribute to) are the following:

- lack of awareness
- lack of qualified teachers to train in tools and concepts
- lack of quality educational materials about Software Libre