

Public Education in Computer Usage: An Ethico-Political Rationale

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Routine provision of computer education and training by public educational institutions for all students at public expense is not the norm in many first world nations. "User pays" and other educational policy norms suggested by economic rationalist assumptions prevail. The paper tries to identify and criticise these from a Neo-Aristotelian point of view, arguing that if politics and policy is suspended from an ethics of equal empowerment to virtue, states in justice have duties to educate and train in vital skills needed by citizens to attain wellbeing. Less affluent citizens have a right to be assisted to exercise their right to knowledge and less affluent nations likewise have strong claims on affluent first world nations. 1

The rationale for current settings in public funding of computer education and training (CET) provision in many First World countries; for the quantum of its macro-level resourceing; and for its funding allocation processes eg the system of competitive tendering, is basically economic rationalism. For thirty years or more it has shaped the educational policies of many states. But the intellectual and moral credentials of economic rationalism itself, hereafter ER, are murky; its successes exaggerated or non-existent; and its application to the computer education and training sector especially inappropriate since the goal of CET should be equality of empowerment, not profit. If the inequality of access to computer literacy problem is not urgently remedied, then given the simple fact that every trumpeted technical advance, made available to the information "haves", necessarily widens the equity gap between information rich and poor, even by standing still in resource allocation, we are really going backwards in equity /ethical terms.

ER rests on three contentious libertarian ethico-political theoretical assumptions whose application is associated in the U.S with the economist Milton Friedman, and libertarian Robert Nozick, their philosophical champion:

- (1) ER takes the concept of "economic man" seriously. Individuals are seen as egoistic, rational, calculating beings. The invisible hand of the free market offsets the bad effects of their acquisitive competitive struggle for the most part. Governments should therefore be watchdog institutions charged with

running the most minimal number of public/social functions possible - defence, law and order, and a few services which cannot be wholly entrusted to the free market because some (ER rationally) will "free ride" (not pay) and so harm others. Such are police and fire services, traffic management, law and national defence; disaster relief, and the control of diseases.

- (2) Even in the case of those few interventionist government services which do meet the excepting conditions to the watchdog test, their resources should be allocated on the basis of proven return to the taxpayer as consumer, and moved back from the public to the private competitive sector wherever possible via sunset clauses and tough user pays enforcement.
- (3) Monies having been allocated in the government budget for a service on the basis of competition with others, the providers of the service should regularly compete with others for the provision rights, with the most "efficient" means, based on and measured by a stipulated index for translating quality into quantity prevailing. Providers must show the "customer" the best "return" on the public funding granted.

If any argument for maximum or even more vigorous public financial and resource support for computer education and training is to succeed, all three assumptions should be rejected. The alternatives to the first- the ER philosophical psychology - will occupy most of the paper. The other two will be treated later as failing by implication.

Regarding (1):

If one goes back to the ancient and medieval texts of Western moral and political philosophy, and adds the egalitarian principles due to the democratic turn from the middle ages to the eighteenth century onward, one finds a set of more sensible social and communitarian assumptions about the psychology of the individual, and about the state's duties to oversee justice in exchange distribution and retribution. For example, if one adopts a neo-Aristotelian virtue ethics and politics, and radicalises it by adding an equality/respect of/for persons principle, drawing out Aristotle's own criteria for persons to include and recognise women and "slaves" (workers) as full persons/citizens, then all sorts of education and training must be seen as ultimate goods of the higher capacities of the self. They must be seen as at least as desirable common goods and parts of wellbeing for all citizens as

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law and order and public health. Indeed they are the final ends, those for the sake of which security and health are themselves sought. Therefore they should be encouraged/assisted by public policy and funded to maximum feasible resource levels.

Neo-Aristotelian Philosophical Anthropology and Politics

The starting point for an Aristotelian ethico-political scheme is an abstract philosophical anthropology including a prescientific "folk psychology" of the grossly observable phenomena and inferred differential capacities of humans. A description of the set of embodied human powers is taken to be the explicandum of natural and social science. Such capacities are: intellect and will; memory and imagination of a certain type; language expression in writing, reading and speech; emotions and feelings of pleasure and pain of a correspondingly sophisticated type; and so on through sense perception, mobility and other molar bodily and internal bodily capacities. They have their own optimum intentional or automatic activities, end states and target objects, and embodiments in the external observable or internal physical and autonomic systems. For example, knowledge of truth is an end/object for intellect. Nowadays the empirical scientific explanans associates it more closely with certain parts of the brain, not the heart, as Aristotle thought, but the raw power is the same as it ever was. Philosophical psychology at this presenting or uncritical phenomenal level is perennial. Intellect has knowledge of truth for its perfecting object, intelligibility as a formal object; and wisdom for its enhancing disposition or virtue. Will has the good everywhere and especially human wellbeing as its perfecting object, and moral virtues as enhancers, such as temperance and courage. There are for neo-Aristotelians also vague/abstract criteria or marks of wellbeing, such as its ultimacy and self-sufficiency. These guide intellect in its search for the specific goods in which it consists.²

The set of marks appears in the second row of Table 1 designated as Hm. The criteria immediately graduate the perfecting objects/end of our human powers, and much else. The powers themselves are helpfully seen at this molar level as quasi-hierarchically ordered with respect to versatility of repertoire, voluntary control, and inherent nobility and worth. The order is roughly as indicated in the above list. The still abstract but slightly greater specification of the content of the human good, from this ideal life perspective at Hs in Table 1, depends partly on this notion of a de-facto "hierarchy" of human powers of the self, with intellect/reason and will/choice at the top, and the rest of the powers under intellect's sovereignty or rule. Organisational metaphors are here allowed to

² These marks of wellbeing listed as Hm in Table 2 below are collected from Aristotle and usefully listed by Aquinas at *Pars Prima Secundae* Q 2,4-8;3, 2;5,3-4; and *Pars Secunda Secundae*, Q°180. They overlap largely with the marks of the organising principle in an architectonic relation. They are drawn from Aristotle's *Nicomachean Ethics*.

illumine individual personality in ways unfamiliar in contemporary methodological individualist circles. The human self, though intellect, identifies and describes the highest human goods whatever they turn out to be, successfully or unsuccessfully. It describes the nature of all the other human powers, including its own material substrate, capacity and limits; identifies the proper objects of each power; and the categories of and means to perfection of power /needs fulfilment. As architectonic organising power it rules well or badly, but ideally, intellect is capable of getting the story right, especially on the issue of its own embodiment in and manipulation of matter-the mind /body issue.³ Through the virtuous dispositions of wisdom and self-control intellect and will try and usually succeed in ruling the other lower powers, well or badly through choices of action. This innate ability of the self to consciously judge and rule other capacities is sometimes called autonomy or self-sufficiency.

As Table 1 suggests, at a highest level of abstraction, the wish for happiness, Ha, the conceptual content of the inescapably wished for ideal life for humans, is vague. The slightly more specific criteria or marks of happiness, Hm, do not vary sharply across cultures; nor does the list of major human capacities and their associated warranted wants/needs. (Brown 1991; Bok 1995; Finnis 1980,1991,1998; Nussbaum 1995.) For the mind, as noted, understanding and knowledge of truth are master ends; for the will such ultimate goods as love and friendship; for the body's molar capacities food, health and safety from violence, pain and death are especially singled out from the good everywhere found. Capacities can be enhanced and developed cumulatively and semi permanently by cultivation of dispositions like wisdom for the mind; courage and moderation and self-mastery for will. Kindness, fidelity and fairness eg are needed by will for conflict resolution and social affiliation with others; environmental responsiveness and good dietary and exercise habits for bodily health. The good/worthy life consists in the pursuit of worthwhile goals.

The argument for being an ethical individual person goes roughly thus:

³ Aristotle's metaphor of sovereignty of intellect and choice over bodily autonomic and sensory powers, memory and imagination is drawn from architect/builder relations Intellect/will is the architectonic organising principle of all our affairs and, with the will, their joint object/ends are that for the sake of which other powers are organised. Architectonic relations are exemplified also by generals and soldiers; horse-riders and saddlers. By analogy the relation can be seen as holding between capacities in an organic entity, functions in a machine, speech acts and phonetics, subject disciplines, social practices, needs, organisations and much else. Aristotle moves from individual to joint decision making by reference to this analogy in accord with his notion of analogy at *Metaphysics* 1003a 32ff and 1096b of *Nicomachean Ethics*.

H _a	<p style="text-align: center;"> Ὁ HAPPY LIFE Ὁ <i>Eudaimonia</i> (Greek); <i>Beatitudo</i> (Latin); Well-being . Flourishing . Success) </p>						
H _m	BEST OBJECTS OF THE BEST POWERS OF HUMAN NATURE (DIFFERENTIA)	CUMULATIVELY CONTINUOUSLY PERFECTED IMMAMENT POWERS	DELIGHTFUL ECSTATIC	SELF- SUFFICIENCY/ AUTONOMY/ PRESERVING GOODS	THE ULTIMATE GOODS	LEISURE- RELATED	PERMANENTLY POSSESSED GOODS
	Perfective/ operational NEEDS	MEDITATION/ CONTEMPLATION OF Ὁ HIGHEST Ὁ OBJECTS OF THE HIGHEST Ὁ POWERS: KNOWLEDGE OF CAUSE(S) OF BEING, TRUTH AND GOODNESS	LOVE FRIENDSHIP INTIMACY, Ὁ THOU Ὁ RELATIONSHIPS MAKING A CONTRIBUTION	CREATIVITY AESTHETIC/ CULTURAL ACTIVITY (ART, MUSIC, DRAMA, DANCE, LITERATURE, ETC. NOT DRIVEN BY SOCIAL/PROFIT COMMERCE CONCERNS)	LEARNING UNDERSTANDING PHILOSOPHY SCIENCE (THEORETICAL SERVICE/GIFT Ὁ Ὁ GAPE Ὁ MEANING IN LIFE	PERSONAL SPORTS AND RECREATION ACTIVITIES FROM GOLF TO FISHING AND CARDS	I N C R E A S I N G
H _s	2. SOCIAL	TRADEWORK/JOB TOGETHERNESS J U S T I C E INSTITUTIONS/ LAW SOCIAL PEACE/ CIVIC RELIGION LEAVING A LEGACY	SOCIAL ESTEEM/RESPECT SECONDARY EDUCATION/LITERACY SOCIAL IDENTITY COMMERCIAL/SOCIAL/ OR PROFESSIONALLY DRIVEN/SPORTS/DRAMA/ MUSIC ETC.	QUALITY PUBLIC HEALTH SELF-CONTROL/ AUTONOMY FREEDOM OF EXPRESSION/ DECISION MAKING	OFFSPRING/SELF PERPETUATION (POWER FREEDOM/ PARTICIPATION) PRACTICAL/SOCIAL & NATURAL SCIENCE	S P E C I F I C	
	3. PHYSICAL	SECURITY (BASIC LAW & ORDER) PERSONAL HEALTH FOOD/DRINK/BASIC WELFARE SHELTER/HOUSING	CLEAN AIR & ENVIRONMENT INFORMATION/COMMUNICATION BASIC LITERACY TRANSPORTATION/MOBILITY	A V O I D A N C E WAR/LETHAL VIOLENCE	A T I O N		

TABLE 1

Ends, Needs, and Norms

1. All wish for a vague human wellbeing (inevitably), and pursue what they believe is a good ordered to this end.
2. The specifying marks of human wellbeing are as indicated in row H_m of Figure 2
3. Given the characteristic human powers/ inclinations and their object/ends and using the marks, H_m, of happiness as standards of selection, assimilating the goods identified in H_s (its list of ingredient ends) best fulfils the wish for H_a. The ends denoted as personal, social and physical needs in Table 1 have the requisite marks in decreasing degrees as they become less diffuse and more specific, from personal to physical.
4. The infant's initial merely passive wish for any good in H_s (to be/have g) should, and will tend to, turn one towards active display of that good as a means to show reciprocity, via the relevant perfecting disposition. To be respected/loved one must be respectable/lovable, and love; to be told truth, one must live in largely truthful community as a truthful person; and so on for the other Ὁ hyper- goods Ὁ (Taylor, 1989).
5. Thus (a) one should Ὁ seek good and avoid evil Ὁ and (b) Ὁ do as one would be done by Ὁ (the principle of reciprocity) and Ὁ avoid harming or oppressing others Ὁ. These Ὁ principles Ὁ are either self-evident, or dialectically derived from premisses #3 and 4. They correspond in practical matters to theoretical axioms like the principle of non-contradiction, and causal generalisations like: Ὁ If you help/harm people, they will tend to help/harm you back Ὁ. On the assertoric or factual order.
6. Therefore (given 5(a)) a wise person will imitate the abstractly ideal person by trying to incorporate the ingredients of H_s into their own individual life, given their powers and circumstances. Let Ὁ denote any given individual happiness by H_i. It will ideally require for its attainment by i_x a commitment to an overall trajectory in life, in which goods are rank ordered in various orders of consideration with an eye on H_s to determine H_i, i Ὁ Vocational adaptation Ὁ of H_s.⁴ Premiss 6 and premiss 5(b) entails one should

⁴ The process of casuistry allows for consideration and variable ranking of the same entity in various orders such as: causality, time, divine versus human consideration, intent /execution. The paradox of inversion between the order of urgency and inherent worth can make physical need the strictest of obligations. The rules against

wish others to do so and attain their H_i and ethical ideals and more specific precepts, and counsels encourage this, eg Do not murder, steal, or defraud follow from principle 5b and our needs.

The notion in 3. and 6. of wanting and choosing worthwhile human goods is the first of six features of ethical Personality broadly conceived, which arguably can cover person or unified groups of persons. An ethical person or artificial group quasi-person such as an organisation or state :

1. Persons and groups should have worthwhile goals pursued by just means in activities, practices, and roles which fit this end.
2. Persons and groups are naturally equal in desire to meet their normatively warranted wants /needs and entitled to pursue their ethically warranted goals through just means
3. To accommodate the fact of different perceptions of specific means to fulfil common generic needs, and individual differences, persons and groups should use their powers to resolve conflicts over goods and distribution of resources, and must institute and follow just conflict resolution rules and processes.
4. People and groups must be free to enter and exit just communities and enjoy supportive cultural activity in search of co-operative and fair needs fulfilment
5. People and groups are entitled to seek redress of any socially constructed inequalities of opportunity to achieve self-empowerment, and enhance their life chances if these are alterable without further injustice.
6. People and groups should make only sustainable use of the natural environment, since it is the condition of all good and just social orders.

Table 2 - An Ethical Frame for Persons and Groups

1. Has worthwhile goals selected from those graduated into the content of Hs of Table 2 by applying H_m criteria to pick up the perfecting object/ends of the human powers, to be pursued in well chosen roles
2. Actually satisfies some or all his /her/ its/ needs (warranted wants and correlative self addressed orders) at minimal , moderate or maximal level.

physical violence are typically the strictest in any civil society. The highest goods need not be always be pursued but retain their superior worth. See my "Wellbeing, rule, and conscience: the use of casuistry by professionals", Professional Ethics , Vol. 7,#3-4,1999

3. Resolves value and practical conflicts fairly
4. Supports and is supported by an enveloping ethical culture /practice
5. Assists the disabled /disadvantaged to attain their wellbeing by empowerment and the provision of opportunity.
6. Values the sustainability of the natural environment as the precondition of meeting physical needs

The first four of Table 2's six features of ethical personhood/ quasi-persons are suggested in part by Bolman and Deals's organisation theory (Reframing Organisations, (1991 and 1997). These authors suggest that organisations too have the following features: structural (goals), human resource (needs), political (differences) and cultural (rituals). Propositions 2-6 in the table are also supported by the location of a normative sense of personal, social and physical need in individuals on the basis of the marks of wellbeing deployed in Table 1; the radicalised egalitarian Aristotle on personhood introduced above; and his reconstructed view of justice to be explicated below. Regarding the broad notion of personality which extends to corporate and governments agents and groups ie to encompass collective quasi-personality, Aristotle is again the source.⁵

The suggestion now made is that if the person corporate analogy holds, master concepts embedded in each of the six proposition of the frame in Table 2 eg in proposition 1, "goals to roles fit", can be applied to X whether X is a person, state, community, or civil organisation. In proposition 2, different needs are to be fulfilled in different people at different levels and in different ways in persons, states and organisations. In proposition 3, conflict resolution will likewise be nuanced according to domain. In other words the above six master propositions concerning categories of good for persons and groups are a Domain- neutral Checklist or template. They can be adapted, and relativised for families, groups, communities, states, and organisations.

⁵ For the notion that state and organisational analogues of persons qualify as equivocally or analogically persons, I rely as before on Aristotle's doctrine of analogy with regard to certain meanings/uses of terms already cited at Metaphysics 1003a 32ff and being/good at Nichomachean Ethics 1096b35ff. Aristotle sketched a doctrine of equivocal meaning of terms where the terms are said to be equivocal by reference to a paradigm instance or focal referent. It is sometimes called a theory of analogical attribution or predication. According to this theory a word like Health can primarily denote a property or state of the body, and secondarily, healthy complexion, a symptom of health; medicine, a cause of health; urine, a sign of health and so on. He uses this notion to argue that Being and Good are likewise equivocal terms, predicated of certain beings primarily and of their properties, relations and effects in certain categories in a secondary way. Things in the categories have being in a transferred secondary sense, and being can be said of them as properties or effects of primary beings as first substances.

Neo-Aristotelian politics: the just state as quasi-person

As I suggest in part three of an earlier version of this paper noted at the end of this paper, a quite complex definition of justice in the state can be reconstructed from the elements of Aristotle's account of the personal virtue without violence to his thought. It has three clauses which refer to acknowledgment of (i) the equality of and respect for our common humanity as members of the species with the same essential raw human capacities and wishes of all citizens, (ii) the need for making social provision for autonomous empowerment and opportunity of all citizens to attain wellbeing in virtue, and (iii) reward for contribution or desert and penalty for their opposites. This analysis can be read out of Aristotle's ethics of reciprocity and the notion of an ethically dependent politics. A just state, somewhat like a good person has artificial as opposed to natural capacities, lodged in role incumbents. As a quasi-person with legislature as intellect and executive as will, it must ideally have 1) an appropriate structure and set of roles targeted on its worthy goals; 2) a means of meeting its "needs", and those of its primary stakeholders, all citizens, as an entity with certain public tasks, 3) a capacity for resource coordination and conflict resolution; 4) a supportive ethical culture, 5) a concern for equality of opportunity for empowerment, and 6) concern for a sustainable environment. A socio-political frame for communities/governments correlated to the personal frame can be set out following these six categories of practical reason designed to assist us to properly locate the roles of politics and social policy in shaping the organisational issues.

Armed with this neo-Aristotelian account of politics as ethics dependent, it is time to address and dispatch the three assumptions of ER.

Addressing ER (1) above, in this philosophical psychology, people are not always egoistic calculators. If they were, organisations and states, which require self-restraint and deference to authority would not exist. In reflective moments they can see that rationally they should not be free riders, even if they do not live this ideal. They can see they should exercise virtues either as subjected in persons or by analogy in quasi- persons (states and organisations) The neo-Aristotelian analysis of people as tending to be curious and social requires a rejection of the Darwinian competition which goes with the picture of economic man and minimalist views of the state and of state support for public education. State and organisational transactions are unintelligible on a purely individual, egoistic basis without reference to ethics. The alleged necessity of iterated competition is mistaken. Education must not be hostage to market forces. The radical egalitarian and social reconstruction of Aristotle's ethics and politics depicted in Table 3 and Figure 1's picture of the dependent relation of politics to ethics suggests we are responsive to more than egoism.

If the numeric order of the spokes of Figure 1 is indicative of prima facie ethical priority, and if the role and place of public organisations in the state is roughly located by the frame in Table 3; and the model in Figure

1, then business organisations at spoke 6 of Figure 1 and markets at spoke 8, both receive their mandate from the state at spoke 3, and ultimately from the ethical hub. The idea that business and markets should rule everything including education is implausible. If domains are mapped out in the way suggested by Figure 1 then it is as already stated a form of "sectoral imperialism" for the business oriented values and principles of the private sector in spoke 6, and/or the market in spoke 8, to attempt to rule the roost. This undercuts their right in public educational policy to cut educational funding support, as ER (1) demands. Figure 1 suggests that they are but one of many state authorised organisational types, and one comparatively remote from policy making for the public good.

- (1) As a goal, the community or state leadership would adopt the common good or well-being **of all citizens** as the purpose of its endeavours.
- (2) The basic physical and social needs of all citizens would be seen as calling for individuals with needs **to have state help in meeting them for themselves**. This fulfilment would be recognised as a matter of collective public obligation, ie. negative freedom (from hunger, violence, environmental ruin, or political repression) would be seen as furthering justice or equality.
- (3) **Positively, provision of education and training opportunity in the areas or the subset of wants designated as needs (physical, social, and personal) would be a state obligation**. Representative democracy would decide what priority was assigned to differences, especially socially constructed ones, and resolve conflict non- violently.
- (4) Culture building measures would be continuously addressed to **affirm the egalitarian justice ideal, ordered to empowerment**, outlining the role the no - envy principle with respect to individual achievement', deprecating free riders.
- (5) Measures to **diminish Arbitrary or unfairly brought about inequalities of wealth, property, status, education** would be instituted by the political leadership
- (6) Environmental **sustainability of physical habitat** would be a state /community priority in order to assure that physical needs were met.

Table 3 - An Ethical Frame for State Governments

It is in the public sector and civic domain that the rules should be crafted and policed by the state at spoke 3 of Figure 1.

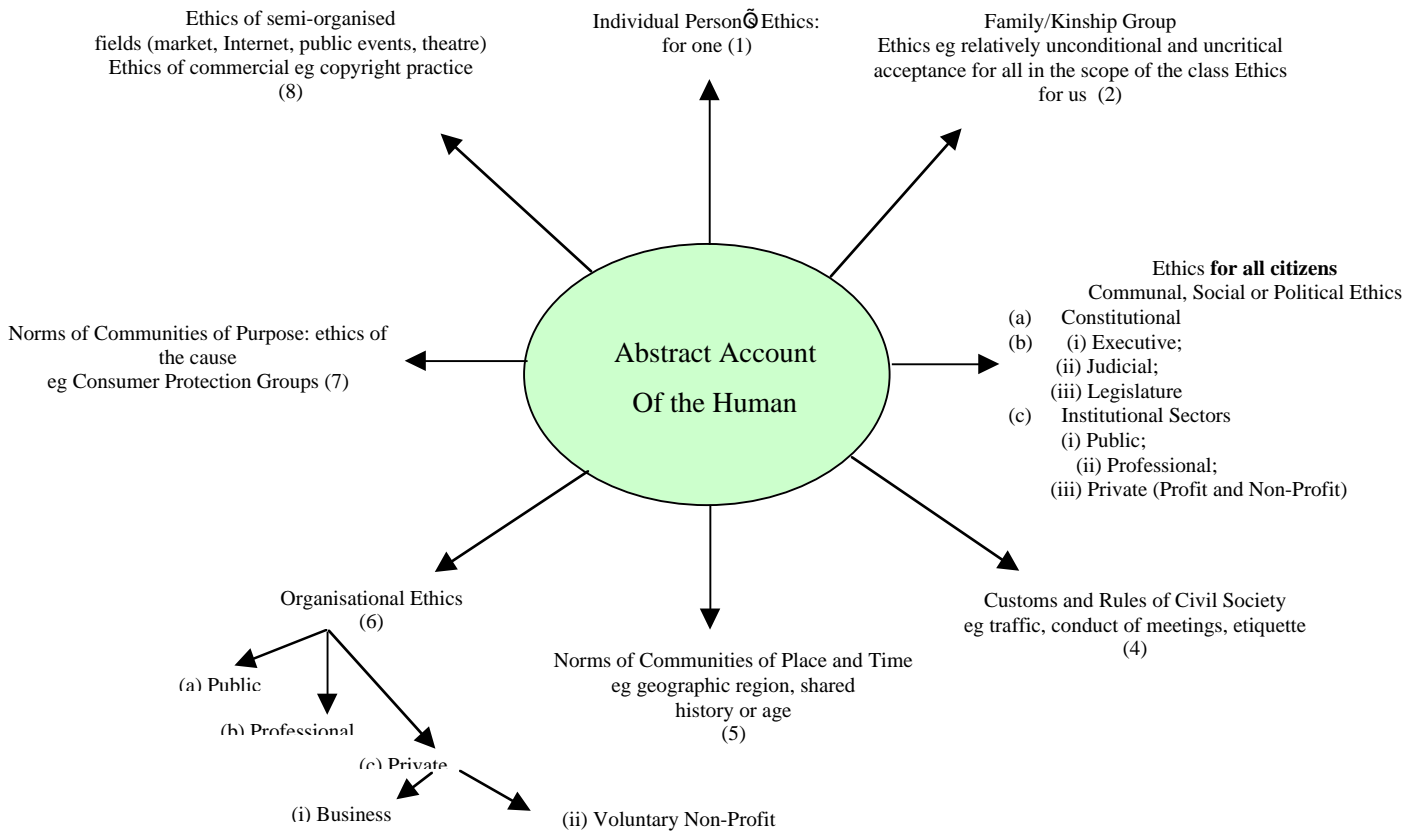


Figure 1 - Why Ethical Precepts Must Presumptively Prevail Across all Domains and Sectors

Armed with this account of neo-Aristotelian ethics and politics we can also move to dispatch the other two assumptions of ER based public educational policy:

Regarding ER(2)

The watchdog metaphor is misleading with its correlative negative or minimal justice account oriented to security. This notion of justice is incomplete. The state should be just in three ways: (i) In addition to assuring their basic physical needs are met eg. for security, and minimal social needs satisfaction attained, the person of each individual citizen should be respected, even if their behaviour is not respectable. (ii) Each citizen should be empowered to attain well being for themselves through facilitation of opportunity for the development of their human capacities via intellectual and moral virtue. For this virtuous empowerment, in order to redress socially constructed disadvantaged, taxes should be levied and funds redistributed to assist in furthering distributive justice. (iii) Each citizen should be given his/her due for their good/bad performances, contributions or deserts attained through the exercise of these enhanced capacities. For individual bad performances that cause harm to the person of others, there should be retributive justice and a law of torts. For positive contributions to the common good, rewards and honours should be distributed. For commercial

interchanges, there should be enforcement of contracts by law.

But one cannot perform or contribute well under (iii) if one is without equitable access to the training provided in accord with the warranted of clause (ii) of the analysis of justice above. Given Table 3, especially proposition 3 and 5 concerning unequal distributions it follows that the state should provide the equivalent of affirmative action for computer illiterates at the state level. As other speakers will attest, at the international level at best one fifth of people globally have access in any form to empowering enhanced dispositions which computer literacy affords or to computers themselves. Information rich people have advantages through information which are not available to the remaining 80%. We face the prospect of making an already severe inequality crisis much worse by government and international inaction due to misplaced priorities. Submarines, casinos, stadiums and prisons should trail CET by a country mile.

Regarding (3)

Public education policy driven by economic rationalism forces the public education and training sector to compete with the private sector in many inappropriate ways, well pinpointed by J. Alford and R. Gregory in *Managerialism: The Great Debate* (1997) edited by M. Considine and M. Painter.

Basically public sector organisations differ in the observability of their goods/ outcomes and services/outputs, and in the determinateness/achievability through craft of their goals. They often for example have to persuade clients to change larger slabs of their behaviour, cope with their refusals/failures; and there is greater need for co-production. As to means, their "signals" of success, decision making methods (procedural/authority vs productivity indices), capacity for certainty and technological fixes, and revenue generation are correlatively different .

Since knowledge as such is an ultimate good, not an instrumental commodity, to force public educational providers to meet the same market oriented standards of measuring "profitability" that would be appropriate for widget production and exchange is inappropriate.

Summarising a complex argument bluntly, the whole ER edifice is based on an unrealistic psychology of Economic man which casts him as a sociopath, and on an ahistorical and amoral ideology. There is not, never has been, nor will be such thing in reality as a totally free market. It is an abstract entity. Real approximations to Free markets require many background state institutions eg. to enforce the contracts in the name of commercial justice. There are inherent maladies in Free markets that only the state can cure. These include the tendency to monopoly; the ignoring of externalities (costs not paid for by the players) such as pollution of the environment; and vast initial inequalities of knowledge and resources amongst the players. There is no level playing field Differences abound of ability, from infancy to infirmity and old age, and in socially constructed advantage, which only the state can alleviate. Consequently, to treat the Free market as either real, or benign is a vicious abstraction, and to base educational policy on this vicious abstraction is immoral.

In a paper delivered at the 9th VET Researchers Conference in July at Coffs Harbour, and available at the website below, these reflections are developed at greater length for the VET sector, but the argument if valid applies very clearly to Computer Education and Training. The conclusion is drawn that we in Australia are foolish in slavishly following the U.S. obsessions with low taxes, minimal government and private accumulation and headed full steam in the wrong educational policy direction in the CET and VET sectors from the point of view of Virtue Ethics. In the public sphere, the discourse of Managerialism- Efficiency Productivity Consumer satisfaction Flexibility and so on can reflect or mask gross value and equity distortions in which economic means supplant political and ethical ends. Taken to extremes it is simply amoral. Efficiency and productivity in the service of the wrong goals was the mark of Eichmann and Speer. Where the goals are not wicked but over exalted, or the value priority skewed, the damage is less severe, but significant nonetheless.

As observed at the outset, every technical advance in computing, made available to the information "haves", necessarily widens the equity gap between the information rich and poor. It requires a vigorous and often costly response for the latter just to restore the status quo ante. If the problem of inequality of access to computer literacy is not urgently remedied by an aggressive public intervention to support the sharing of computer education and training then by standing still in resource allocation, we are doubling the speed at which we are going backwards in equity /ethical terms.

Because on an Aristotelian account the higher goods of the higher powers - goods like knowledge, friendship and health are not halved by being shared, and because of the inexhaustible capacity of knowledge and information in particular to be consumed over and over without disappearance or detriment to the environment, solutions to the many social and environmental inequalities our planet faces may well turn on intellectual, cultural, and technology gifts and transfers exploiting the internet and other computer applications. To power to use this opportunity must be shared as widely as feasible through education and training as a matter of urgency.

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- The paper on application to the VET sector can be accessed at the NCVER conference website: <http://www.ncver.edu.au/research/papers/trconf9.htm> and is forthcoming in *Australian Journal of Professional and Applied Ethics*, Vol.2 #2