

The Hegemony of Microsoft®: An Australian Story¹

KATHRYN MOYLE

ABSTRACT *Each Australian state and the Australian Capital Territory has signed a 'whole of education department' contract with the Microsoft® Corporation for the provision of operating systems and other software. This contracted use of Microsoft® products is one story where the purchase of specific commodities is directly connected to the provision of public schooling. It is argued that through these contracts Microsoft® exercises a hegemonic relationship with the schooling systems in Australia. The legal relationships that exist between Microsoft® Corporation and the respective Australian states and territories schooling systems seem to mutually maintain and reinforce the monopolistic, or at best, oligopolistic position of Microsoft® Corporation and its hegemony over Australian public schooling. Further, it is argued that Microsoft's® hegemonic position in part is maintained by both establishing a 'commonsense' about its products and by receiving legitimization and authority through the State for its products used in Australian schools.*

Keywords: Microsoft®, hegemony, Australian public schooling, narrative.

Introduction

This paper uses narrative theory and hegemony to examine the nature of the relationships between the Australian public schooling systems and the Microsoft® Corporation. It is through the use of narratives that people make meaning from their experiences, from the consequences of their actions, and from the stories of their projected futures.² Hegemony is understood as the predominance of one group of people over others, achieved through their consent, and maintained through the commonsense or normal reality of those subordinated in the hegemonic relationships.³ Hegemony has been used with narrative theory in this paper to interpret, understand and explain public schooling sector policies concerning the use of Microsoft® products in Australian public schools. Using a narrative theoretical approach, the pieces of public information about the contractual arrangements between the respective Australian state and territory governments have been constructed into a story. Doing this has raised questions concerning the respective roles of Microsoft® Corporation and the State as authors

and characters in the narrative. Interpretation of the 'Microsoft® story' including the language used by the authors and characters demonstrates that hegemonic relationships are constructed and maintained by Microsoft®.

Context

In Australia the six states and two territories have the main legislative and budget responsibilities for the provision of public schooling. State Acts of Parliament concerning the provision of school education each address similar sorts of requirements including the roles of teachers and student attendance requirements. In addition, the commonwealth or federal government has some oversight for the provision of school education. These nine government schooling sectors each have policies advocating the widespread use of digital technologies.⁴ As part of the implementation of these policies state and territory governments have been purchasing computer hardware and software.

The largest purchase of software by each state and the Australian Capital Territory education departments occurs through the signing of state-wide 'whole of education department' agreements with the Microsoft® Corporation. These contracts are called *Microsoft® Enterprise Agreements*. The Northern Territory Department of Education has opted for the use of Linux: an open source software solution for its operating systems.⁵ The states' and the Australian Capital Territory's Microsoft® Enterprise Agreements are covered by 'commercial-in-confidence' clauses⁶ and therefore are not available publicly. Information has been pieced together for this paper from a variety of public sources such as Parliamentary Hansard.⁷

Necessity of Software

Activities undertaken in schools using digital technologies are dependent upon what is often referred to as an 'infrastructure'. Here 'infrastructure' refers to the hardware, software and telecommunications required to make digital technologies work. Infrastructure also includes local and wide area networks used to link several computers together, in this case within and across schools. Local and wide area networks are computers and software that provide users with the means to communicate and transfer information electronically. The difference between a local and a wide area network is one of geography. The word 'local' usually refers to the linking of computers within one organisational unit (for example a school). A wide area network usually refers to computers linked together across a number of organisations such as several schools, linked to the central education department.

One component that all computers require to work is software. There are two main sorts of software: the systems software or operating system (OS) which controls the workings of the computer; and the application software that allows computer users to undertake specific sorts of tasks such as word processing, using spreadsheets or developing and manipulating graphics.

Nothing on a computer will work without an operating system. Operating systems are used to make individual computers as well as networks of computers work. That is, local and wide area networks are as dependent on a reliable operating system as is an individual personal computer (PC). To make operating systems and other software work requires programming. To program requires the

use of a language. These programming languages are used to write the commands required to make computers work the way they do. As Bob Young states

computer languages are called languages because they are just that. They enable educated members of our society (in this case, programmers) to build and communicate ideas that benefit the other members of society, including other programmers.⁸

Among computer programmers there is an historical and ideological split concerning whether operating systems should be free or not.⁹ As Capron has stated 'once upon a time when you bought a computer, the operating system came with the hardware. First it was free, later not free, but . . . operating systems are usually defined by the vendor, with the user silently acquiescing'.¹⁰ In the twenty-first century it seems that the vendor rather than the government is defining the operating systems to be used in Australian public schools.

The Use of Microsoft® Products in Australian Public Schools

The operating systems most commonly used by the respective Australian schooling systems are products purchased from Microsoft® Corporation: Microsoft® Windows® and Microsoft Windows NT™.¹¹ These can sometimes be referred to as the 'back end' software or the 'back of office' software. As the metaphor suggests, this software works behind other software programs. In this way, although required to make computers work and allow networks to function, the existence of this software is unseen once the computer is turned on. The branding and advertising of Microsoft® operating systems however, can be seen every time a school computer is turned on but it is often not recognised because it is so implicit.

With government policies advocating the use of digital technologies, schools and school systems require hardware, software and telecommunications to make computers and the Internet work. The provision of these goods represents ongoing costs to governments and to schools as new computers are bought and updates to software and operating systems occur. In order to get better leverage with Microsoft® Corporation than that available to an individual school, the policy responses in each state and the Australian Capital Territory have been to negotiate a 'whole of education department' software licence with Microsoft® Corporation.

National Summary

It can be seen from Table 1 that the costs to the respective Australian governments (excluding the Northern Territory) for their 'whole of education department' Microsoft® Enterprise Agreement software licences are likely to be in excess of \$AUS33 million per annum. At an average cost of \$AUS86 per machine per year¹² and using an aggregated total of each state and territory's stated computer to student ratios, the projected costs of Microsoft® software can be estimated. Plotting enrolment data against the computer to student ratios claimed by each state and territory allows for an educated guess to be made of the total number of licences required across public schools in Australia. For example, in 2001 a total of just over 2.2 million students were enrolled in the government schooling sector in Australia.¹³ At an average cost of \$AUS86 per machine per year, and given the student to computer ratios claimed, \$AUS33.54 million per year would be paid for

Table 1. Summary of estimated costs of Microsoft® licences

States & territories	ABS (2001) recorded number of enrolments in government schools in 2000 by state and territory ^a	Computer to student ratios claimed by state and territory education departments	Projected cost of Microsoft® Enterprise Agreement software based on 1999–2002 costs of \$AUS86 per machine per annum ^b	Status of Microsoft® contracts ^c
ACT	38,401	1: 4.7 ^d	\$702,656	Renewal in 2002 ^e
NSW	759,623	1: 6 ^f	\$10.88 million	Renewal in 2003 ^g
NT	28,925	1: 10 ^h	No Enterprise Agreement ⁱ	No Enterprise Agreement
QLD	430,402	1: 7.5 ^j	\$4.935 million	Renewal in 2002 ^k
SA	174,177	1: 5 ^l	\$2.99 million	Renewal in 2002 ^m
TAS	62,803	1: 5 ⁿ	\$1.08 million	Renewal in 2002 ^o
VIC	528,189	1: 5 ^p	\$9.08 million	Renewal in 2004 ^q
WA	225,767	Primary: 1: 5 Secondary: 1: 2 ^s	\$3.88 million	Renewal in 2003 ^r
TOTAL	2,248,287		\$33.54 million ^t	

Microsoft® licences (if each year were the same as 2001 in regard to enrolments).

It should be borne in mind however, that as Microsoft® Corporation negotiates the commercial-in-confidence contracts with each state and territory individually, some states are able to negotiate better arrangements than others. These figures therefore, should be taken as illustrative rather than absolute.

Characters or authors?

The story of the use of Microsoft® products in Australian schools has two major participants: the Microsoft® Corporation and the State (exercised through the respective state and territory governments). Given the legislative responsibility for the provision of public schooling, in a story such as this, the State ordinarily would be considered as having the role of author, and the Microsoft® Corporation as a vendor would be considered as an actor or character. In this story however, through the hegemonic relationships exercised by Microsoft® Corporation the roles of the author and character are being blurred. In problematic ways the powerful legitimating forces of the legal, political and bureaucratic institutions required for the provision of public schooling in Australia are being brought together with the market dominance of the Microsoft® Corporation.

A brief outline of these two participants follows.

Participant 1: The State

The State in this story is represented through the respective schooling systems of the states and territories of Australia. Public statements pertaining to the provision of schooling such as policy documents, administrative instructions and other communications between the education departments and schools are authored by officers on behalf of the State. These documents gain their authorisation through

Notes: ^a Australian Bureau of Statistics (ABS), *Schools Australia* (4221.0), Australian Bureau of Statistics, Australia, 2001. Note: this reference pertains to all rows in this column of the table.

^b Note: the figure of \$86 per machine has been based on public statements from some states (see endnote 12). These figures are conservative and should be taken as illustrative only.

^c This column outlines the likely status of these contracts based upon statements made by the respective government agencies. They are individually referenced by state and territory, see below.

^d Australian Capital Territory Department of Education and Community Services, *DECS IT Report Card: Infrastructure*, Australian Capital Territory Department of Education and Community Services, 2000, http://www.decs.act.gov.au/publicat/decsit/dec00/decs_html/infrastruct.htm [accessed 20 December 2002].

^e See Australian Capital Territory Department of Education and Community Services, *Grants to Schools Bringing IT Together, Software, Information Technology Support*, 1998, <http://www.decs.act.gov.au/tech/grants.htm> [accessed 24 November 1999]; Parliament of the Australian Capital Territory, *Hansard 1997 Week 13 (4 December)*, p. 4575, <http://hansard.www.act.gov.au/1997/WEEK13/4575.HTM> [accessed 10 March 2001].

^f Parliament of New South Wales Legislative Assembly, *Computers in Schools Program (20 June)*, New South Wales, 2002, p. 3561, <http://www.parliament.nsw.gov.au/prod/web/phweb.nsf/frames/hansard> [accessed 31 January 2003].

^g While public documentation concerning the timing of the renewal of the New South Wales Enterprise Agreement is not easily available, given all other states and territories are renewing their licences between 2002 and 2004, it is likely that this too is the case for New South Wales.

^h Northern Territory Treasury, *Budget Paper 1. Budget Speech 2001–02*, Northern Territory Government, 2001, p. 10, <http://www.nt.gov.au/ntt.financial/budget2001-02> [accessed 3 June 2001].

ⁱ The Northern Territory only has a Select Agreement with Microsoft®. See: Department of Employment, Education and Training, *LATIS: Learning and Technology in Schools, Purchasing Microsoft Software*, Northern Territory Government, 2002b, p. 1 <http://www.latis.net.au/softbank/msselect.htm> [accessed 3 February 2003]. This paper has focused upon state and territory Microsoft® Enterprise Agreements only.

^j Queensland Government, *Appropriation Bill 2000. Second Reading Speech 18 July 2000*, Queensland Government, 2000, p. 12, <http://www.treasury.qld.gov.au/budget/budget2000/pdfs/bp1pdf/bp1speech.pdf> [accessed 5 June 2001]. Note: in this speech the Queensland Treasurer indicated that it was anticipated this ratio would be reduced to 1:5 by 2001. Given the funding allocated in subsequent budgets, it is likely that the 1:5 target has been met.

^k D. Wells, *Schools and Teachers Save in Deal with Microsoft*, Ministerial media statement, 17 August 1999, http://statements.cabinet.qld.gov.au/cgi-bin/display-statement.pl?id=3477&db=media_prev_beattie_1 [accessed 12 December 2002]. In this statement the Hon Dean Wells indicates that a three year Enterprise Agreement had been signed between Education Queensland and the Microsoft® Corporation.

^l Government of South Australia, *Media Release: \$75 Million for School Information Technology*, Government of South Australia, South Australia, 2001.

^m Department of Education and Children's Services (SA), *Microsoft Agreement*, Department of Education Training and Employment (SA), 2002, <http://www.e-education.sa.edu.au> [accessed on 31 January 2003]; Department of Education, Training and Employment (South Australia), *Annual Report 2000*, Government of South Australia, 2001, p. 90, http://www.schools.sa.gov.au/policy/files/links/DETE_AnnualReport_2000.pdf [accessed 3 February 2003].

ⁿ Department of Education (Tasmania), *Computers as Tools for Teaching and Learning. A Planning Resource for Schools and Teachers*, Department of Education (Tasmania), 2001b, <http://www.discover.tased.edu.au/ec/leaders/toolsbook.html> [accessed 3 February 2003].

^o Department of Education, Corporate Services, School Support Services, *Microsoft Agreement*, Department of Education (Tasmania), 2001, http://www.doe.tased.edu.au/corporate/schoolsupport/tech/Microsoft/ms_agreement.htm [accessed 3 March 2001]. This site described the *Annual Licence Fee* arrangements of \$86 per annum to be met jointly by schools and the department for 1999, 2000 and 2001.

^p Department of Treasury and Finance (Victoria), *Budget Paper 3 Budget Estimates 2001–02*, Department of Education, Training and Employment, Government of Victoria, 2001, p. 21, [http://www.dpc.vic.edu.au/domino/web_notes/budgets/budget01.nsf/e58e57fb30518ec44a25672a00009883/6f561f869e04184a256a-530082fae2/\\$FILE/bp3deet.pdf](http://www.dpc.vic.edu.au/domino/web_notes/budgets/budget01.nsf/e58e57fb30518ec44a25672a00009883/6f561f869e04184a256a-530082fae2/$FILE/bp3deet.pdf) [accessed 20 December 2002].

^q Department of Treasury and Finance (Victoria), *Budget Paper 2: Appendix B Specific Initiatives*, Government of Victoria, 2000, p. 244, [http://www.dpc.vic.gov.au/domino/web_notes/budgets/budget00.nsf56c2ad2748caa-3ca4a25675b00039155/0e16a8dc5d447a924a25675b000b7952/\\$FILE/bp2appB.pdf](http://www.dpc.vic.gov.au/domino/web_notes/budgets/budget00.nsf56c2ad2748caa-3ca4a25675b00039155/0e16a8dc5d447a924a25675b000b7952/$FILE/bp2appB.pdf) [accessed 24 May 2000]. This budget paper indicates an allocation of funds for Microsoft® software licencing to 2003–04.

^r Department of Education Western Australia, *Computers in Schools*, Department of Education, Government of Western Australia, 2002b, p. 1, <http://www.eddept.wa.edu.au/t2000/cis.htm> [accessed 20 December 2002]. Note: Western Australia does not provide an aggregated total as the other states and territories do but rather provides primary and secondary computer to student ratios. The projected costs of Microsoft® licences for Western Australia were calculated on 1:5.

^s P. Albert, *Microsoft Software Enterprise Agreement*, Department of Education, 2002c, p. 1, <http://www.eddept.wa.edu.au/tcontracts/documents/LetterToPrincipalsAboutNewCDPack.pdf> [accessed 3 February 2003]. Note: Paul Albert is the Director General of Education in Western Australia.

^t With the aim of governments to achieve a student to computer ratio of one computer to every five students the national aggregated total cost of Microsoft® licences would be \$37.84 million per annum. See for example: Australian Capital Territory Department of Education and Community Services, 2000, *op. cit.*; Department of Treasury and Finance (Victoria), 2001, *op. cit.*; Government of SA, 2001, *op. cit.*; Queensland Government, 2000, *op. cit.*

the authority of the State. Ministers of the Crown also with the authority of the State, sign commercial contracts such as those constructed between the State and the Microsoft® Corporation.

Participant 2: Microsoft® Corporation

Microsoft® Corporation was co-founded by William H. Gates III and Paul Allen in 1975. It is a multi-national hardware, operating systems and software applications developer and a vendor.¹⁴ It is one of the largest commercial software developers in the world.¹⁵ In Australia Microsoft® Corporation also provides training through a range of programs including the Authorised Academic Training Program and the Microsoft® Certified Systems Engineer program. To support these programs Microsoft® Corporation has developed Microsoft® Official Curriculum courseware and Microsoft® certified examinations.¹⁶

Microsoft® is a Monopoly

Periodically during the 1990s and more intensively since 1999, the government of the United States of America as the plaintiff within the District Court of Columbia has made several charges concerning Microsoft's® alleged monopoly position in the software market. This has included the charge that Microsoft® (Defendant) 'has waged an unlawful campaign in defense of its monopoly position in the market for operating systems designed to run on Intel-compatible personal computers ("PCs")'.¹⁷ According to the initial *Conclusions of Law* in this trial

Microsoft's® share of the worldwide market for Intel-compatible PC operating systems currently exceeds ninety-five percent, and the firm's share would stand well above eighty percent even if the Mac OS were included in the market. . . . Together, the proof of dominant market share and the existence of a substantial barrier to effective entry create the presumption that Microsoft® enjoys monopoly power.¹⁸

Due to its size, coverage and behaviour in the global marketplace therefore, Microsoft® Corporation has been labelled as a monopoly.¹⁹

Judge Jackson, in this *Conclusion of Law* defined monopoly power to be 'the power to control prices or exclude competition'.²⁰ According to Section 2 of the Sherman Antitrust Act in the United States of America it is unlawful for a person or a company to monopolise 'any part of the trade or commerce among several States, or with foreign nations'.²¹ Microsoft® Corporation vigorously appealed the Court's decisions in this trial, however the United States Court of Appeals initially upheld the finding that Microsoft® Corporation used its market dominance to maintain a monopolistic position in PC operating system software. During 2001 and 2002 Microsoft® Corporation has continued to defend its position against the Federal prosecutors in the United States Justice Department. In November 2002 a controversial settlement was agreed upon between the United States Government and Microsoft® Corporation.²² Albeit there has been a negotiated settlement, the contesting of Microsoft® Corporation's use of monopoly power in the software marketplace continues.²³

Considering Microsoft® Corporation as a monopoly or as an oligopoly, where an oligopoly is 'the condition of a market in which a small number of firms control

a large portion of production’²⁴ means that Microsoft® Corporation has considerable negotiating power in the marketplace. Making observations about the Australian oligopolies in media ownership Trevor Barr has noted that there are dangers in oligopolistic ownership. He states that such concentrations of ownership can lead to ‘potential abuse of power; loss of diversity of expression; [and] conflict of interest’.²⁵ Whether Microsoft® Corporation is a monopoly or an oligopoly, Australia’s education departments are negotiating with a large and powerful corporate vendor.

Character or Author?

The ability of government officers and Ministers of the Crown to negotiate and author software contracts and non-commercial public policies in a context where Microsoft® is so dominant can be problematic. Microsoft® Corporation arguably has the power to independently author its own stories about the use of its products within the public sector. The roles of the author and character in this story then are being blurred. To go to the next step and argue that the Microsoft® Corporation is a robust author with hegemonic powers, which sees Microsoft’s® products authorised and legitimated through the State however, raises the question of ‘how is this achieved’?

Constructing and Maintaining Hegemonic Relationships

The strength of Microsoft® Corporation’s relationships with Australian government schooling systems can be demonstrated through its ability to gain a commonsense²⁶ about the necessity of its products; to gain common sets of agreements about the nature of the products each state and territory accepts; the similarity of the conditions that apply to the use of these products covered under these respective agreements; and in the public discourse used to talk about the agreements. Governments demonstrate their complicitness to Microsoft® by signing the contracts and paying the money; accepting the grants for incorporating ‘Microsoft® curriculum’ into schools; and by using a shared language that demonstrates an homogenisation of the public messages provided, thereby furthering the commonsense of the relationship.

Given the extent of the examples upon which to draw, here we present three interwoven plots indicative of the characteristics of each state and the Australian Capital Territory’s state-wide Microsoft® agreements. Firstly, an outline of how Microsoft® establishes the commonsense is provided. This includes a discussion of the nature of the language that has been used to describe the Microsoft® agreements. Secondly, some of the characteristics common to the state education systems’ Microsoft® licences are summarised. Thirdly, other associated Microsoft® initiatives relevant to the Australian schooling sector are outlined. Together these plots form a story that demonstrates that Microsoft®, as a robust author, exercises its hegemonic powers with its products authorised and legitimated through the State.

Plot 1: Establishing a Commonsense—Legitimizing and Authorising the Necessity of Microsoft® Products through the State

The Australian states’ and territories’ schooling systems have traditionally maintained they are unique from each other.²⁷ Irrespective of this there is a high

degree of commonality between each of the states and the Australian Capital Territory's licence agreements with Microsoft® Corporation.

Microsoft® has been able to move into a position within the public schooling sector where there is an assumed ubiquitous requirement for the use of its products. This position is reinforced by achieving a common view across the states and territories that maintains the interests of Microsoft® Corporation and is enforced through the ruling noted in more than one of the Australian state policies which indicates that adherence to the Microsoft® agreement is mandatory for all schools.²⁸ Furthermore as one state Minister of Education has articulated, the purchase of Microsoft's® products can be associated with a sense of coercion, force or inevitability about the requirement to purchase these products. Commenting about signing a contract on behalf of an education department the following extract provides insights into this Minister's views about the purchase.

You know the biggest software company in the world [is] to supply software to schools at a much cheaper rate. Instead of paying \$350 per computer we've got a bulk software purchasing agreement which will bring it down to \$86 per computer and we're sharing that cost between the central department and the schools. And schools will get the whole Microsoft® Office suite of software, you know, operational Windows stuff, Word, web publishing, desktop publishing, spreadsheets, databases, basically all the computer basic stuff they need for a substantially reduced cost. . . . It's a bit of a Catch 22 though because I guess that's one contract we've sort of been forced into because we don't have somewhere, somebody here who produces that software.²⁹

This extract demonstrates that the Minister perceived there were no other choices to that of Microsoft® software and therefore felt forced to use these products. It may be that this has been the case with the other Ministers of Education signing contracts with Microsoft® Corporation.

Common Product Lists and Common Language

In each state and the Australian Capital Territory the Microsoft® licence agreement buys a suite of software products.³⁰ The software covered in the product list of the Microsoft® agreements is the same for every state and the Australian Capital Territory. The language used to describe these respective agreements also shares some commonalities. It is important to look at the language used because it is through these constructions that the stories of how hegemonic relationships are maintained can be illustrated.

In 1998 (for example) the Australian Capital Territory government stated that the Microsoft® licence provided to schools covered 'all Microsoft® software, excluding games. . . . This includes "Front Office software" (e.g. Word, Excel, Mail) and "Back Office software" (server operating system)'.³¹ In Western Australia, when notifying schools that the department of education had signed a contract with Microsoft® Corporation, the documentation stated that this agreement provided 'workstation and server software in schools, district offices and central office'.³²

Information supplied to schools by each of the respective government departments about the Microsoft® product list has been consistent in content, formatting and intention. In April 1999, a letter from Mr Ron Mance, the Acting Director-General of the Education Department of Western Australia, to all

principals and district directors in Western Australia, outlined the following goods were covered by the Microsoft® licence.

The licence will cover the use of:

- 32 bit operating system upgrades including Windows 95, Windows 98, NT Workstation (base operating systems still need to be purchased when computer hardware is acquired);
- Office Professional *or* Works;
- Back Office Client Access Licences;
- Internet Explorer;
- Outlook Express;
- Front Page;
- Publisher; and
- Encarta 99 Reference Suite *or* Visual Studio Professional

Where applicable, these products may also be used on Apple Macintosh workstations. All schools will also have access to the Windows NT™ server operating system (emphasis in the original).³³

In a letter that varied by only a few words to that of the Western Australian letter, the (then) Chief Executive of the (then) Department of Education, Training and Employment (South Australia) also wrote to all Principals, Preschool Directors and Corporate Board members. In this letter he stated that

the agreement provides the following set of products for use on all curriculum and administration workstations, regardless of current licensing arrangements.

- Microsoft® Windows Operating System Upgrades, Windows 98 *or* Windows NT 4.0 Workstation (When new hardware is acquired, base operating systems still need to be purchased. The agreement allows upgrades on workstations which have existing operating systems.)
- Microsoft Office Professional 98 and 2000 (Word, Excel, Powerpoint, Outlook, Access); and *or* MS Works
- Microsoft Office 98 for Macintosh
- BackOffice Client Access Licences
- Front Page
- Encarta 99 Reference Suite *or* Visual Studio
- Microsoft Press electronic books—online training materials (emphasis in the original).³⁴

Not only are the other Australian states and the Australian Capital Territory product lists consistent with the software coverage outlined in the South Australian and Western Australian letters to schools, but in the Western Australian and South Australian letters even the emphasis by ‘bolding’ the word ‘or’ in each list is maintained.

As the product list that each state and the Australian Capital Territory has agreed to purchase is the same, it may be that nationally there is a high level of consistency about the software requirements of each schooling system. Alterna-

tively, or in addition, Microsoft® Corporation has been only willing to broker a contract covering the same product list with each of the schooling systems. The language of the documentation used by each of the schooling systems is highly consistent to the point of 'word for word' in some cases. Since there is this level of similarity in the nature of the documentation that each state and territory has released, and given the proclaimed unique nature of each state, this raises the question of authorship: 'who wrote the information intended for public use and thereby the wording for public policy'?

The 'Unique' Nature of the Agreements

The respective states' and territory's product lists have been reported upon and publicised by the schooling sectors as 'unique'. Each respective state and territory has claimed that its licence has been specifically developed for its state's unique circumstances. The (then) Acting Deputy Director General of Western Australia, commenting on how the products would meet the particular demands of the state announced that 'the Department has built on the past purchasing trends that schools have demonstrated for a core set of Microsoft® products and consolidated them into a state-wide enterprise licence with Microsoft'.³⁵ The Minister of Education in Tasmania described the arrangements under the Microsoft® agreement to a House of Assembly Estimates Committee hearing. She stated that the agreement had 'been tailored specifically to meet the needs of the Education department so it is unique in that respect'.³⁶ The (then) Queensland Minister of Education stated in a media release that 'in order to ensure the best possible pricing and access to current software we have negotiated a custom agreement'.³⁷ It is indicative of the market strength of Microsoft® Corporation that a cost of \$86 per computer licence has been reported beyond the borders of Queensland³⁸ yet the contracts developed are proclaimed to be reflective of each state's uniqueness.

It may be that the Microsoft® Corporation was aware of the tradition of the perceived uniqueness by the states and territories when negotiating the licences with them. Certainly the Ministers of Education have been keen to promote to the public and school communities the unique aspects of the product list covered by the respective licensing agreements, albeit that the uniqueness here seems to have been more a myth than a reality.

While each state and territory's product list and the conditions associated with its use are similar, so too is the language used to describe the conditions of use associated with the licensing agreements.

The Deals

The language surrounding the signing of the respective contracts between the public schooling sectors and the Microsoft® Corporation regularly has included the use of the term 'deal' to describe the arrangement. For example the title of the media release authored by the (then) Queensland Minister of Education was 'schools and teachers save in deal with Microsoft'.³⁹ One of the state Ministers of Education stated, 'I just announced on the weekend the fact we've just brokered a deal with Microsoft'.⁴⁰ and the national newspaper *The Australian* covered the signing of the Western Australian contract by titling the article 'Microsoft deal gives schools a licence to surf'.⁴¹ Reflecting on what the term 'deal' means in these

circumstances it is salutary to refer to the *Shorter Oxford English Dictionary* where a 'deal' is defined as 'a secret arrangement in commerce or politics entered into by parties for their mutual benefit'.⁴² The use of the term 'deal' then, is somewhat apt.

The licence agreements have been and remain subject to 'commercial-in-confidence' requirements; a characteristic common across each of the states and territories. In an Estimates hearing in Tasmania the (then) Director of the Information Management Branch, in response to the question 'can you get the cost on that licence?' stated 'I think that it is probably covered by commercial-in-confidence at the moment'.⁴³ Similarly, in Queensland in a Parliamentary Estimates Committee hearing the (then) Minister of Education outlined the processes used in the lead up to and the signing of the Microsoft® licence. He stated that the 'legal doctrines like privity of contract apply and there is . . . in those commercial circumstances a limitation to the extent to which widespread consultation can take place'.⁴⁴

The commercial-in-confidence nature of the Microsoft® agreement in some states has led to teacher concerns about whether the contract really is as good as it sounds. This was most strongly articulated in Queensland where the Queensland Teacher Union placed a boycott on Microsoft® products, partly due to the perceived lack of consultation with teachers by the education department, and because it was believed that the agreement purchased Microsoft® goods that were not seen as necessary in schools.⁴⁵ Given the states and the ACT are each purchasing a departmental licence to cover many thousands of computers with a set list of software, it raises questions like 'how many Encarta CD ROMs or Visual Studio Professional packages are really required by any given state'? It appears though, that irrespective of the difficulties for politicians concerning the public policy management of large commercial contracts they have been willing to accept these difficulties in the apparent belief of a greater good being served through signing their respective Microsoft® agreements.⁴⁶

Plot 2: Characteristic Conditions of the State-wide Microsoft® Licences

There are many common characteristics concerning the conditions for use of the state-wide agreements. These are not unique to each state and territory. Two of these characteristics are outlined here: home usage by teachers of the Microsoft® software, and the extent of coverage provided by the agreements. Again these are indicative rather than exhaustive examples but they illustrate the ways that the Microsoft® Corporation works to maintain its hegemonic relationships.

Home Usage

Home usage of the software covered under the Microsoft® Enterprise Agreement licence is a common feature among the states' and the Australian Capital Territory's agreements. A letter from a previous South Australian Chief Executive states, 'a significant component of this agreement is that all teaching and administration staff of DETE [Department of Education, Training and Employment] will be able to use the workstation products **at home** for work-related purposes' (emphasis in the original).⁴⁷ Similarly, the (then) Queensland Minister of Education Honourable Dean Wells released a Ministerial Media Statement, which in part said that 'an innovative feature of the agreement is the permission for

classroom teachers to use Microsoft® software for work-related purposes on the home computer'.⁴⁸

The condition of availability of Microsoft® software for home usage by teachers can be considered as a benefit of the licensing agreement, however it is important to recall that 'hegemony doesn't simply come about; it must be worked for in particular sites like the family, the workplace, the political sphere, and the school'.⁴⁹ The condition in the contract that allows for 'home usage' by teachers is interpreted here to be indicative of one of the ways in which Microsoft® Corporation is able to work at maintaining its hegemonic relationships. Furthermore, this condition of allowing the use of Microsoft® products at home feeds the belief that Microsoft® products are ubiquitous and therefore strategically extends Microsoft® Corporation's reach into the home. This perhaps is a more comprehensive way of encouraging the use of Microsoft® products as it involves providing software to a whole cohort of teachers with the assistance of the State, rather than to see market forces acting on idiosyncratic individual agents. This reflects the dominance of Microsoft® Corporation, and the use of the authority of education systems to potentially increase the reach of Microsoft's® products beyond schools.

Software Coverage

Another consistent condition within the 'whole of department' state-wide licences is that they do not cover the licences required for the original operating systems to make the computers work in the first place. The aforementioned Western Australian product list indicates this stating that 'base operating systems still need to be purchased when computer hardware is acquired'.⁵⁰ This is also stated in the South Australian letter which states that 'when new hardware is acquired, base operating systems still need to be purchased. The agreement allows upgrades on workstations which have existing operating systems'.⁵¹ This means that when new hardware is purchased the operating system software also has to be purchased since the state-wide Microsoft® software licence only covers upgrades. The following policy position is illustrative of this.

Note that this Agreement does NOT mean that new computers can be purchased without an OEM (operating system) licence. Schools and preschools are required to purchase the lowest cost OEM licence, currently Windows98SE, in the purchase price of a computer (emphasis in the original).⁵²

In 2003, this policy remains the position of the Department of Education and Children's Services in South Australia.

Some states have had previous agreements with Microsoft® Corporation that remain in place in addition to the state-wide Microsoft® Enterprise Agreements. This is demonstrated in several states' documentation. An information sheet to Western Australian schools states that 'the Microsoft® Select 4 Agreement will still apply to other Microsoft® products that are not included in the enterprise licence set'.⁵³ In South Australia, a letter to schools stated that 'the Microsoft® Select 4 Agreement will still apply to other Microsoft® products that are not included in the new agreement'.⁵⁴ The Tasmanian Department of Education refers to the Education Select Agreement stating 'schools that have additional servers can still purchase NT Server licences at \$168 each through the Education Select Agreement'.⁵⁵ These statements indicate that schools and the respective departments are required by

Microsoft® to continue to cover the costs and maintain the paperwork applying to previous licences in addition to those records required under the enterprise licensing agreement.

Plot 3: Other Associated Microsoft® Initiatives

Microsoft® Corporation works at maintaining and extending its market reach in schools, and it is argued that this is hegemonically maintained by using mechanisms that go beyond the licence agreements signed. The following examples serve to illustrate this.

In the Australian Capital Territory on 25 May 2000, the (then) Chief Minister circulated a media release titled *\$300,000 Investment by Microsoft for Enhancing Information Technology Skills in Australian Capital Territory Education Sector*. In part it stated

Microsoft will invest \$300,000 over three years for the delivery of IT industry accredited training to students at government and non-government high schools, CIT [Canberra Institute of Technology], ANU [Australian National University], University of Canberra and the Australian Defence Force Academy. . . . The investment [is] being made under Microsoft's Authorised Academic Training Provider program.⁵⁶

In Queensland in 1999 the (then) Minister of Education stated 'Education Queensland would include "Microsoft® curriculum".'⁵⁷ in its school programs. The Minister indicated that 'Microsoft would subsidise the AAPT [Authorised Academic Training Program] to a value of almost \$100,000'.⁵⁸ In October 2000, the (then) Western Australian Minister for Works, Services, Citizenship and Multicultural Interests put out a media statement titled *Home-based Computer Program to Bridge Technology Divide*. In this statement the Minister announced that the Education Department of Western Australia and Contract Management Services (CAMS) were working on a new program called Schools@Home. The Minister stated that 'he was pleased that CAMS—working with the Education Department and computer giant Microsoft®—was contributing expertise, physical resources and funding of \$266,000 to the Schools@Home Project'.⁵⁹

Therefore in addition to the software contractual arrangements with the public schooling sectors in Australia, Microsoft® Corporation has extended its interests in schools by supporting the teaching of 'Microsoft® curriculum'. This is achieved with the state education Ministers' active support of programs that enhance Microsoft® Corporation's reach into the home. As Michael Apple points out 'these purposeful, reasoning, and well-intentioned actors, may be latently serving ideological functions at the same moment that they are seeking to alleviate some of the problems facing individual students and others'.⁶⁰ This seems to be the case here. The Ministers of Education, in aiming to reduce the costs of software to schools,⁶¹ instead are operating to maintain and further the dominant ideologies of the Microsoft® Corporation. The State is thus complicit in maintaining Microsoft's® hegemony.

Two Powerful Forces—Microsoft® and the State

It has been argued that Microsoft® Corporation is a monopoly or an oligopoly and that either label implies considerable corporate power. It has also been argued that

the Australian schooling systems are Microsoft's® markets, with consent for these arrangements provided by each state and territory. There has been a willing acceptance by Australian government departments of education of the dominance of Microsoft® Corporation. It is important to understand these arguments as Pierre Bourdieu has pointed out:

an analysis of ideologies in the narrow sense of 'legitimizing discourses', which fails to include an analysis of the corresponding institutional mechanisms is liable to be no more than a contribution to the efficiency of those ideologies.⁶²

The State (that is each state and territory) has exercised its centralised authority through the signing of the Microsoft® agreements and thereby made their use public policy. These agreements have required Ministerial signature, which legitimates and in some cases makes mandatory the use of Microsoft® operating systems and other software. That is, there is the legal enforcement provided to ensure the use of Microsoft® products provided through the contractual arrangements that have been put in place and are effective in schools. In addition there is the cultural transmission of knowledge that is the role of schools, which ensures the commonsense of and consent to the use of Microsoft® products. This is achieved through using Microsoft® operating systems and other software, and through the provision of Microsoft® curriculum, assessment and credentialing processes. Sometimes Microsoft® Corporation charges for these services and in other circumstances, financial contributions to facilitate the use of 'Microsoft® curriculum' have been provided. Bureaucrats and politicians, through the use of the powers of the State, consent to these processes and resultant relationships.

All of these activities bring together two powerful forces: Microsoft® Corporation and the State. The State through the public school education system legitimates the use of Microsoft® products and in some cases the use of its curriculum. The use of Microsoft® products thus becomes commonsense.⁶³ The ideological support for the use of Microsoft® products then is actively occurring within the school education systems.

In this story it has been argued that hegemony has been functioning 'to define the meaning and limits of commonsense as well as the form and content of discourse . . . [by] positing certain ideas and routines as natural and universal'.⁶⁴ To this end, Microsoft® Corporation has been using schools to gain cultural authority in relation to how and what students learn about digital technologies; how students construct and present their learnings, (for example) by using the existing templates or structures that are already included in the software; and how teachers do their work. Therefore, Microsoft® Corporation has been able to exercise its influence through the legal or contractual agreements signed at the government level and through the provision of curriculum, assessment and credentialing services operating inside and outside existing state regulated provisions.

In summary then, this paper has outlined the nature of the relationship between the State and Microsoft® Corporation, specifically in relation to public schooling in Australia. It has been argued that by extending market relations into the schooling sector, Microsoft® Corporation is helping to consolidate and maintain its dominant market position. Given the increasing intervention of the private market into schools, there is a process of legitimation being undertaken by the State of products produced by Microsoft® Corporation. The legal, political and

social institutions of the State then have provided authority to these hegemonic forces.

This paper *de facto* also raises some questions that require further thought: is this what we want from public education? What are the implications for the future of maintaining these sorts of market relationships using the authority of the State? What are the counter-hegemonic strategies that are available to the State in settings such as those described in this paper? Are these sorts of arrangements happening elsewhere? Is it possible to reauthor the 'Microsoft® story'? Addressing these questions are the topics of future papers.

Notes and References

1. The author has hard copy printouts of all URLs referred to in this paper.
2. See for example: D. Carr, *Time, Narrative and History*, Indiana University Press, Bloomington, 1986; D. Polkinghorne, *Narrative Knowing and the Human Sciences*, State University of New York, USA, 1988; P. Ricoeur, *From Text to Action. Essays in Hermeneutics II*, The Athlone Press, London, 1991; E. Roe, *Narrative Policy Analysis: Theory and Practice*, Duke University Press, Durham & London, 1994.
3. A. Gramsci, *Selections from the Prison Notebook*, Lawrence and Wishart, London, 1971; R. Williams, *Keywords: A Vocabulary of Culture and Society*, Fontana, London, 1976; R. Williams, 'Hegemony and selective tradition', in S. de Castell, A. Luke and C. Luke (eds), *Language, Authority and Criticism. Readings on the School Textbook*, The Falmer Press, London, New York, Philadelphia, 1989.
4. Australian Capital Territory: Australian Capital Territory Department of Education and Community Services, *Information Technology Services in Education*, Australian Capital Territory Department of Education and Community Services, 2001a, <http://www.decs.act.gov.au/services/itservices.htm> [accessed 10 March 2001]; New South Wales: New South Wales Department of Education and Training, *The Department of Education and Training Information and Communications Technologies Strategic Plan 2000–2003*, New South Wales Department of Education and Training, 2000, <http://detwww.nsw.edu.au/itcstp/ictstp.htm> [accessed 15 October 2001]; Northern Territory: Northern Territory Department of Education, *Learning and Technology in Schools (LATIS)*, Northern Territory Department of Education, 2001, <http://www.latis.nt.edu.au/latis/LATISmay.ppt> [accessed 24 June 2001]; Queensland: Education Queensland, *Computers in Learning Policy and Guidelines*, Education Queensland, 2001, http://education.ald.gov.au/tal/2001/cil_pol.htm [accessed 10 November 2001]; South Australia: Department of Education, Training and Employment (South Australia), *DECS Tech 2001*, Department of Education, Training and Employment (South Australia), 1999; Tasmania: Department of Education (Tasmania), *Discover*, Department of Education (Tasmania), 2001a, <http://www.discover.tased.edu.au> [accessed 10 November 2001]; Victoria: State of Victoria (Department of Education, Employment & Training), *Department of Education, Employment and Training Corporate Plan 2000–2003*, State of Victoria, 2001, <http://www.deet.vic.gov.au/deet/pdfs/DEET%20CP%202000–03.pdf> [accessed 13 June 2001]; Western Australia: Education Department of Western Australia, *A Framework for the Implementation of Learning Technologies in Government Schools*, Government of Western Australia, 2001, <http://www.eddept.edu.au/T2000/chart.pdf> [accessed 24 January 2002]; Commonwealth: Commonwealth Department of Education, Science and Training, *Learning for the Knowledge Society. An Education and Training Plan for the Information Economy*, Commonwealth Department of Education, Science and Training, 2000, <http://www.detya.gov.au/schools/publications/reports/learning/learning.htm> [accessed 27 September 2000]; Education Network Australia (EdNA), *Learning in an Online World. School Education Action Plan for the Information Economy*, Commonwealth of Australia, South Australia, 2000.
5. See: Department of Employment, Education and Training, *LATIS: Learning and Technology in Schools, FAQ's*, Department of Employment, Education and Training, 2002a, p. 1, http://www.latis.net.au/ictc_info/faq.htm [accessed 13 June 2002].

6. See Parliament of Queensland, *Estimates F—Education, (13 October)*, 1999, p. 483 http://parlinfo.parliament.qld.gov.au/isysnative/RDpcSVNZUzZcREJTXEhBTlwXOTk5LIBERlw5OUVTVF9GLIBERg==/99EST_F.PDF¹ = <http://parlinfo.parliament.qld.gov.au:80/isysquery/irl89ff/1/hilite> [accessed 31 January 2003]; Parliament of Tasmania, *House of Assembly Estimates Committee A, (10 June)*, 1999, p. 45, <http://www.hansard.parliament.tas.gov.au:8000/ISYSquery/IHT1847.c> [accessed 31 January 2003].
7. See for example: Parliament of the Australian Capital Territory, *Hansard 2000 Week 12 (7 December)*, 2000, p. 3835, <http://www.hansard.act.gov.au/hansard/2000/week12/3835.htm> [accessed 31 January 2003]; Parliament of New South Wales, *Hansard Extract, Legislative Assembly: Computers in Schools Program (7 June)*, 2000, p. 6765, <http://www.parliament.nsw.gov.au/prod/web/phweb.nsf/frames/hansard> [accessed 31 January 2003]; Parliament of Queensland, *op. cit.*, pp. 482, 34–8; Parliament of Tasmania, *op. cit.*, pp. 34–38; Department of Education Western Australia, *Microsoft Software Enterprise Agreement. Information for Schools*, 1999, <http://www.eddept.wa.edu.au/LTContracts/documents/Info%20sheet%20April%201999.pdf> [accessed 31 January 2003].
8. B. Young, 'Forward', in E. Raymond, *The Cathedral and the Bazaar. Musings on Linux and Open Source Code by an Accidental Revolutionary*, 2nd edition, O'Reilly, USA, 2001, pp. ix–x.
9. For discussion on this matter see: P. Himanen, *The Hacker Ethic and the Spirit of the Information Age*, Secker & Warburg, Great Britain, 2001; Raymond, *op. cit.*
10. H. Capron, *Computers. Tools for an Information Age*, 2nd edition, Benjamin/Cummings Publishing Company Incorporated, USA, 1990, p. 269.
11. See for example: Australian Capital Territory Department of Education and Community Services, *School Management Manual*, Australian Capital Territory Government, September 2001b, 8.14.1, p. IT8; Department of Education and Children's Services (South Australia), *E-Education—Microsoft Agreement*, 2001; <http://www.e-education.sa.edu.au/> [accessed 31 January 2003]; New South Wales Department of Education and Training, Information Technology Bureau, *Sharing Resources on a Windows 95/99 Peer to Peer Network*, Department of Education and Training, 2001, <http://www.schools.nsw.edu.au/media/downloads/admin-support/schtechnologies/sharing.pdf> [accessed 31 January 2003]; Department of Education Western Australia, *Microsoft Software Enterprise Agreement CD Media Kit*, Department of Education Western Australia, 2002a; Education Queensland, *Application of New Technologies to Enhance Learning Outcomes for Students*, Education Queensland, Queensland, 1999; Education Victoria, *Learning Technologies. Teacher Capabilities*, State of Victoria, Victoria, 1999.
12. See for example: Parliament of Queensland, *op. cit.*; Parliament of Tasmania, *op. cit.*, p. 46. Note that while in 1999–2000 in some states \$86 per computer was the price for a Microsoft® licence, with the renewal of contracts by states and the ACT during 2001 and 2002 this price may have increased.
13. Australian Bureau of Statistics (ABS), *Schools Australia (4221.0)*, Australian Bureau of Statistics, Australia, 2002, p. 2.
14. See the Microsoft Corporation website: <http://www.microsoft.com>.
15. See NASDAQ website: <http://www.nasdaq.com>; World Economic Forum website: <http://www.weforum.org>. See also NASDAQ, *Microsoft Corporation Holdings Summary*, NASDAQ, 2002, <http://www.nasdaq.com/asp/Holdings.asp?symbol=MSFT%60&selected=MSFT%60> [accessed 31 January 2002].
16. See Microsoft advertising materials such as Microsoft® Corporation, *Microsoft® Authorised Academic Training Program (AAPT) Fact Sheet*, Microsoft® Education and Certification, Australia, Microsoft® Corporation, 1998; Microsoft® Corporation, *The Real Test is the Real World*, Australia, Microsoft® Corporation, 1998.
17. T. F. Jackson, (Judge), *Conclusion of Law, Civil Action No. 98–1232 (TPJ)*, United States of America, 2000, p. 1, <http://www.microsoft.com/presspass/trial/col/col.asp> [accessed 20 April 2001].
18. *Ibid.*, p. 2.
19. *Ibid.*
20. *Ibid.*

21. *Ibid.*
22. See: Antitrust Case Filings, *United States versus Microsoft*, United States of America, 2002, http://www.usdoj.gov/atr/cases/ms_index.htm [accessed 20 December 2002], pp. 1–5.
23. See for example: J. Wilcox, 'Microsoft settlement watchers chosen', in *CNET*, CNET Networks, 2002, <http://news.com.com/2100-1001-966830.html> [accessed 26 November 2002]; Slattery, *Internet Watch: Weekly Online Newsletter*, Slattery, 27 January 2003, p. 4.
24. R. Scruton, *A Dictionary of Political Thought*, Pan Books in association with The Macmillan Press, London, 1982, p. 333.
25. T. Barr, *newmedia.com.au. The Changing Face of Australia's Media and Communications*, Allen and Unwin, Australia, 2000, p. 6.
26. The word 'commonsense' is used here in the Gramscian sense. See Gramsci, *op. cit.*
27. See for example: Ministerial Council on Employment, Education, Training and Youth Affairs (MCEETYA), *National Report of Schooling in Australia: 1996*, MCEETYA, Curriculum Corporation, Melbourne, 1999, <http://www.curriculum.edu.au/mceetya/public/pub322.htm> [accessed 1 March 1999]; P. Partridge, *Society, Schools and Progress in Australia*, Pergamon Press Australia, Australia, 1973.
28. Department of Education, Training and Employment (South Australia), *Frequently Asked Questions*, Department of Education, Training and Employment (South Australia), 2000, <http://www.tsof.edu.au/LT.SA/decstech/faq.htm> [accessed 13 March 2001]; Parliament of Queensland, *op. cit.*, p. 490. Note: specific information to schools about the Department of Education and Children's Services Microsoft Enterprise Agreement is now password protected. See <http://www.e-education.sa.edu.au/loginform.htm> [not accessed 28 December 2002].
29. Transcript of a 'research conversation' conducted on 21 July 1999: lines 525–49. This 'research conversation' was conducted as part of the following Ph.D. research: K. Moyle, *Digital Technologies in Australian Public Schools: A Narrative Study of Government Policies*, 2002.
30. See for example: Australian Capital Territory Department of Education and Community Services, *Grants to Schools Bringing IT Together, Software*, Information Technology Support, 1998, <http://www.decs.act.gov.au/tech/grants.htm> [accessed 24 November 1999]; Parliament of New South Wales, *op. cit.*; D. Wells, *Schools and Teachers Save in Deal with Microsoft*, Ministerial media statement, 17 August 1999, http://statements.cabinet.qld.gov.au/cgi-bin/display-statement.pl?id=3477&db=media_prev_beattie_1 [accessed 12 December 2002]; Department of Education, Corporate Services, School Support Services, *Microsoft Agreement*, Department of Education (Tasmania), 2001, http://www.doe.tased.edu.au/corporate/schoolsupport/tech/Microsoft/ms_agreement.htm [accessed 3 March 2001]; Department of Education Western Australia, 1999, *op. cit.*
31. Australian Capital Territory Department of Education and Community Services, 1998, *op. cit.*, p. 2.
32. Department of Education Western Australia, 1999, *op. cit.*, p. 1.
33. R. Mance, *Microsoft Software Enterprise Agreement*, Education Department of Western Australia, August 1999, p. 1, <http://www.eddept.wa.edu.au/LTContracts/documents/Mance%20Microsoft%20licence%20letter%20to%20Principals%20April%201999.pdf> [accessed 20 December 2002]. In 2002 this product list was updated. See: Department of Education Western Australia, 2002a, *op. cit.*, p. 1.
34. G. Spring, *Microsoft Software Enterprise Agreement*, Department of Education, Training and Employment, November 1999, <http://www.tsof.edu.au/LT.SA/> [accessed 13 March 2001]. Note: this letter was sent in hard copy to all schools, however, specific information to schools about the Department of Education and Children's Services Microsoft Enterprise Agreement is now password protected. See <http://www.e-education.sa.edu.au/loginform.htm> [not accessed 28 December 2002].
35. Mance, *op. cit.*, p. 1.
36. Parliament of Tasmania, *op. cit.*, p. 46.
37. Wells, *op. cit.*, p. 1.
38. See for example: Parliament of Tasmania, *op. cit.*, p. 46.

39. Wells, *op. cit.*, p. 1.
40. Transcript of a 'research conversation' conducted on 21 July 1999: lines 521–22. This 'research conversation' was conducted as part of the following Ph.D. research: K. Moyle, *Digital Technologies in Australian Public Schools: A Narrative Study of Government Policies*, 2002.
41. L. Henderson, 'Microsoft deal gives schools a licence to surf', *The Australian*, News Limited, 11 May 1999, p. 44.
42. W. Little, C. Onions & G. Friedrichsen, *The Shorter Oxford English Dictionary*, Oxford at the Clarendon Press, Oxford, 1973, p. 494.
43. Parliament of Tasmania, *op. cit.*, p. 45.
44. Parliament of Queensland, *op. cit.*, p. 483.
45. *Ibid.*
46. See for example: Wells, *op. cit.*, p. 1; Parliament of Tasmania, *op. cit.*, pp. 45–6.
47. Spring, *op. cit.*, p. 1. See also Department of Education and Children's Services (South Australia), *op. cit.*, p. 1.
48. Wells, *op. cit.*, p. 1.
49. M. Apple, *Education and Power*, Routledge & Kegan Paul, London & Boston, 1982, p. 18.
50. Mance, *op. cit.*, p. 1.
51. Spring, *op. cit.*, p. 1.
52. Department of Education and Children's Services (South Australia), *op. cit.*, p. 1.
53. Education Department of Western Australia, *Microsoft Software Enterprise Agreement. Q & A*, Education Department of Western Australia, 1999, p. 1, <http://www.eddept.wa.edu.au/LTContract/documents/MSEAQAJune99.pdf> [accessed 20 December 2002].
54. Spring, *op. cit.*, p. 2.
55. Department of Education, Corporate Services, School Support Services, *op. cit.*, p. 1.
56. K. Carnell, '\$300,000 Investment by Microsoft for Enhancing Information Technology Skills in ACT Education Sector', Ministerial media release, Australian Capital Territory government, 2000, p. 1, <http://www.act.gov.au/mediareleases/fileread.cfm?file=deleted/Microsoft.txt> [accessed 10 March 2001].
57. Wells, *op. cit.*, p. 2.
58. *Ibid.*
59. R. Johnson, *Home-based Computer Program to Bridge Technology Divide*, Ministerial media release, Government of Western Australia, 2000, p. 1, <http://www.wa.gov.au/mediareleases/482569730038345d?OpenDocument&Highlight=2,Microsoft> [accessed 13 March 2001].
60. Apple, *op. cit.*, p. 13.
61. Department of Education, Training and Employment (South Australia), *Software Strategy. Microsoft Enterprise Agreement for the Department of Education, Training and Employment*, Department of Education, Training and Employment (South Australia), 1999, p. 1, <http://www.tsof.edu.au/LT.SA/decstech/microsoft.html> [accessed 13 March 2001]; Department of Education Western Australia, 1999, *op. cit.*, p. 1; Wells, *op. cit.*, p. 1. Note: In the Department of Education, Training and Employment (South Australia) specific school information such as this has now been moved into a password protected area. See note 34.
62. P. Bourdieu, *Outline of Theory and Practice*, Cambridge University Press, Cambridge, 1977, pp. 188–9.
63. Gramsci, *op. cit.*
64. H. Giroux, *Ideology, Culture & the Process of Schooling*, Falmer Press, London, 1981, p. 94.