

Ready, Set, Share?

AEShareNet - a model for managing digital resources

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Background

AEShareNet Ltd, a Company owned by the Ministers for Education & Training in Australia, was established in August 2000 and the website for online transaction of copyright licences went live on 27 February 2002.

The impetus for the formation of AEShareNet came from the desire to simplify the copyright issues surrounding nationally owned resources, and the legal copyright framework was designed by Philip Crisp, Australian Government Solicitor: “The concept for the AEShareNet Model emerged from years of experience of managing copyright licenses through the Australian Government Solicitor and various Commonwealth and State Government Departments. It was obvious that these licences could be standardised and offer considerable advantages to the vocational education sector” (Fripp, Macnamara, 2003).

The original concept was around clean copyright clearances and sharing of resources between the Commonwealth, States and Territories. There was even a subtext that anything produced in any jurisdiction; Commonwealth, State or Territory could be freely made available to all VET providers, public and private alike, as it was all done with taxpayers’ monies.

The environment

A National Project was approved in November 1998 based on recommendations of a Consultation Paper by Kaye Schofield & Associates for the AEShareNet concept. It is important to note that even then, ideas of licences for overseas organisations was canvassed, “It seems a waste not to use the AEShareNet vehicle and the global technologies available through the internet to try to introduce some standard licence in the area of international licensing”(Schofield 1997).

Meanwhile VET in Australia was undergoing some systemic change. The advent of the open training market, the move to national training packages and various re-organisations of the national and state system to achieve various efficiencies had significant impact on the culture of most VET providers. While a national approach to qualifications would seem to give added impetus to the need to share or trade resources across state boundaries, the competitive agenda meant that individual institutions were loathe to share or collaborate unless there was a commercial reason for doing so.

At the same time, in the last ten years there has been significant growth in the use of resource-based learning. Whatever the terminology: flexible learning, e-learning or open learning, most emerging genres rely on the learner using some sort of pre-packaged learning resource. When the only people in VET using pre-packaged learning resources were the specialist distance education or external studies units, resource sharing took place in a small sub-culture club. As early as 1985, a Heads of External Studies Committee of the Australian Conference of TAFE Directors produced a paper on “Cooperation, Resource Sharing and Future Developments in TAFE External Studies” (Australian Conference TAFE Directors 1985). This was to rationalise delivery for small demand courses to achieve efficient use of resources. However, even in this instance, copyright issues were not seen as significant.

By the last years of the 20th century most public and many private training organisations were developing their own self-paced learning resources. Commentators had presaged this in the early 1990s, “in this regard the logistics and infrastructure of distance education is a crucial component of any attempts to open up learning” (Macnamara 1993). The need for some efficient infrastructure to encourage and facilitate the sharing and/or trading of learning resources had become that much more important. In such an environment, hard copies are useful but electronic versions that can be contextualised for a particular use would be even more valuable, assuming it could be done.

Back in the mid 1990s the web was in its infancy and paper-based transactions were the norm. AShareNet emerged in this paper-based world but was positioning itself to cater for the digital world. This meant on-line copyright and licensing transactions for AShareNet itself. But it also meant dealing with a sector that was increasingly using on-line functionality to deliver its services. This move to an on-line VET world made the need for an AShareNet type service all the more important. Teachers creating online resources found these were a more expensive option to develop and more visible than copying pages from books as a classroom handout.

Early history “The Copyright Licensing Club”

“In the early days AShareNet was sometimes described as ‘the copyright licensing club’ and the club notion of sharing resources for the common good still underpins much of the philosophy” (Fripp, Gilding 2003). The club idea resulted in a membership business model for the organization. The core of the model was for multilateral transacting of licences between parties rather than a series of bilateral agreements between parties, and especially seen then, between the Commonwealth and a series of State-based public and private providers. The AGS concluded:

"The whole problem became very complex when (around 1995) we had to consider copyright arrangements for the AVTS - NTP [National Transition Plan]. The number of interested parties became very much larger. There was a need to control not just the top licensing layer, but also sub-licensing activity. It became clear that if we were to continue with the conventional approach we would need to put in place such a labyrinth of overlapping bilateral arrangements that the task of rationalising copyright ownership and license rights would never be completed." (Fripp, Gilding 2003)

The Licensing Protocols

The first task was to establish a licensing framework and the following model was developed. Four license protocols were identified and these were registered as trademarks. In summary, the license protocols were:

[AShareNet-U](#)

[AShareNet-P](#)

[AShareNet-S](#)

[AShareNet-C](#)

U is for unrestricted usage P is for preserve the integrity of the material. S is for standard, core material C is for commercial material

Full details on these license protocols can be viewed on <http://www.aesharenet.com.au/resources/licenses/051fullcomp.asp>. The strength of the four trademarks is the extent to which they permit creation of Derivative materials, the extent of vetting and the provisions for ownership of copyright in those Derivatives. This particularly applies to Derivatives that fall into the category of Enhancements – an area where there is unexplored potential to maximize saving on costs of new resource development.

In the beginning most attention was given to the ‘P’ and ‘S’ protocols. This reflects the original focus on sharing of resources between jurisdictions. With an ‘S’ licence, no charge is made by the licensor to the licensee. All enhancement work done by the licensee goes back to the licensor as their copyright. In other words; the major incentive beyond the copyright concept is the value of “adaptation” not “copying”.

However, even the original Schofield consultancy noted the predilection of VET practitioners to embrace a commercial approach “Will participants have a tendency to

affix the C protocol to the majority of their material? What incentives could be introduced to encourage participants to affix the S protocol? (Schofield 1997)

Invariably, organizations wish to create particular conditions for unique situations, and to cater for this need the AShareNet-C protocol allows the copyright owner to set and negotiate various changes in an online environment. During the data capture stage in the Local System, the copyright owner creates a 'Customisation Profile' for each desired set of conditions and associates one of these profiles with each material. The areas where negotiation can occur are; vetting, enhancements, supplementary, exploitation, purpose, beneficiaries and compilation. Useful background reading is available at <http://www.aesharenet.com.au/resources/licenses/057derivative.asp>

Members are also able to specify for each Profile whether negotiation with individual licensees is required. If negotiation is not required, a licensee is able to obtain a licence on the spot, electronically. If the owner specifies that negotiation is required, they can set individual conditions for each licensee within the template of the AShareNet licence profile. The C protocol then facilitates straight trading of resources, though it too can enable sharing especially when resources are tagged as "in development".

As part of the Company set-up, the Commonwealth provided funds to each state and territory, \$500K in total, to clarify copyright and get a quantum of resources listed on the AShareNet database. This was based on the recognition that much of the material available in the national pool of VET materials had a complex history of development and that ownership of the copyright in this material was often convoluted, layered, and poorly documented. The copyright clarification money was allocated to States and Territories with an undertaking that they would each identify and describe at least 100 high quality materials for which copyright ownership had been clarified which they would offer for licence at the commencement of AShareNet operation.

To summarise, in order to achieve its original purposes, AShareNet:

- Developed four licence protocols covering virtually all the kinds of transactions likely to be required in the sector. This legal framework is "an embodiment of and formalisation of several years of collaborative agreement building (sometimes called "the AShareNet model"). (Gilding and Fripp, 2003)
- Developed an online system that enables resources to be discovered and licensed through a website i.e. licences could be transacted (and stored) electronically. The process also allows the appropriate financial transactions and for tracking of users. This includes a reporting function for vendors.

In the process, AShareNet also addressed a number of technical issues:

- Agreement on a national metadata schema for cataloguing of resources
- A means of ensuring a consistent data-capture capacity.

(For a more complete description of these issues, see Fripp & Macnamara, Copyright Management in the World of Learning Objects, forthcoming EDUCAUSE 2003)

AEShareNet, then, was ready to facilitate various kinds of sharing and trading between jurisdictions and members. The emphasis was on sharing and through licensing, providing a means of tracking users and assisting revision and customization of resources within an appropriately endorsed and structured legal framework.

So the copyright club was ready to roll, but what of the players?

Understanding and relevance

Despite the dynamics of the VET system in Australia being extremely favourable to an AEShareNet type service at the beginning of the 21st century, and despite the innovative infrastructure developed by the architects of AEShareNet, understanding and initial acceptance are an issue. Broadly, these issues can be grouped under Education and Cultural Change, Communication and Promotion and appropriate Business Models.

Education and cultural change

Generally, while the legal fraternity are passionate about copyright, it is something many VET practitioners prefer to ignore. Describing the AEShareNet Model in terms of copyright clarification did not always help. The response of “what’s copyright” was not uncommon. Similarly the difference between buying a copy and taking out a licence is not clearly understood. A recent ANTA Flexible Learning Advisory Group (FLAG) project on legal issues in flexible learning provided much needed guidance for the practitioners on many legal matters but especially on copyright and intellectual property http://flexiblelearning.net.au/legal/pdf_downloads/Flex%20Learn-Managers.pdf (FLAG Website 2003). Some of this interest has been prompted by the current focus on learning objects and re-purposing of material for multiple end users. FLAG is currently investigating copyright issues in a learning object based VET environment. Where copyright is not well understood, the end result could be learning materials with embedded third party copyright, not rigorously cleared and therefore a resource that should not be easily made available to share or trade further.

While VET teachers have good networks and often share at the sub-culture level (hence the success of sharing at the distance education quintessential TAFE sub-culture level) this does not necessarily translate into formal arrangements at the VET management level. At the same time the drive to competition in the VET sector and even within TAFE Institutes within a state jurisdiction made the concept of sharing and even selling resources less appealing to VET managers. The idea of making public VET resources available to those private RTOs they were in competition with was sometimes seen as anathema. While there had been a culture of collaboration in the production of national resources funded by the Commonwealth, this collaboration seems to have vanished along with the funding.

Despite the introduction of national courses, teachers and practitioners persisted with the “no good if not done here” approach. The infrastructure of TAFEs to some extent is based on this approach. Some would argue that resources cannot be uncoupled from the teacher who developed them. This is certainly strongly argued in the higher education sector: can you re-use materials from other sources (Fritze 2003) even though this is technically possible? Put another way is re-purposing of materials from elsewhere that

much easier than starting from scratch? Perhaps the real issue is about reworking a ‘concept’ rather than repurposing a ‘product’ (for example, consider the way many teachers work: bits and pieces of previous materials will be re-used, illustrations, assessment items, etc, but they will be placed in a different framework for different audiences. This may lend weight to the learning object argument.)

Notwithstanding the above comment, there is also a continual cry from teachers when faced with the implementation of a new national training package of “where are the supporting resources”? There is similarly a complaint from many VET managers of: where are the resources to develop the resources? In this context there is still a need for collaboration and for protocols to assist this in order to maximise the use of the scarce taxpayers’ dollar. The culture, then, contains these contradictory elements of parochialism and commercial competition, a legacy of the so-called Open Training Market and cries for co-operation and collaboration in the development of resources to deliver nationally agreed qualifications. AEShareNet’s role as a contributor to this is not well understood.

Before moving to consider Communication and Promotion, there is another issue that exists as part of the VET culture in some quarters. This is the notion that since all the material is Crown copyright, then there is no need for any form of licence clearinghouse as it should all be made readily available and the real issues revolve around communication, access and distribution.

Communication and promotion

Currently AEShareNet has over 6500 resources listed on its database with a further 12,000 pending. However, the number of transactions is currently relatively small. With a service like AEShareNet, there is a long lead time between client knowledge and use. There are several factors here including the notion of conducting this sort of business online. Many units that do use licensing have their own paper-based arrangements which are embedded in their organisational infrastructure and culture. The cost of these arrangements is not always immediately apparent and can be buried in staff and structural expenditure. However, AEShareNet costs and commissions are transparent. A further factor is that many of the players are inexperienced in licence negotiations and unsure of what prices to ask or pay in terms of licences.

AEShareNet also needs to actively promote the benefits that it can provide, not only to the original jurisdictional Members but to those to whom AEShareNet has opened up its services through the new Associate registration (see below).

Business models

Many of those currently “selling” resources are dealing with hard copies as well as paper-based licences. AEShareNet can make possible the transmission of the resource, licensing and the funding transaction electronically providing the Member concerned is prepared to make the resource available online with appropriate safeguards. Some systems are experimenting with this integration, for example, TAFE Frontiers have gone some way to integrating sales and licences but separate billing still means the services are not yet fully bundled.

(<http://www.aesharenet.com.au/resources/references/148tfintegrate.asp> AShareNet Website 2003).

There are also some users who would see that AShareNet should provide infrastructure services for the VET sector which acknowledge that the majority of VET activity is in the public domain and provided by the public provider. The notion of a business model and of some charge for this sort of service is therefore not yet accepted. At the same time, there are some of those who feel that AShareNet should operate as a free service for public VET and cover its operating costs by charging private providers of VET.

AShareNet, itself, has realised the need to address a wider audience than that originally intended, i.e. state systems/jurisdictions and government instrumentalities in general. While this premise dictated the original business model, AShareNet has seen the need to allow for Members who are not vendors of resources, and therefore not licensors but who wish to be consumers or licensees. This led onto the creation of the Associate registration, which allows individuals and organisations both in Australia and overseas to access resources and expands the potential market for AShareNet Members considerably.

While not part of the discussion on business models, it is appropriate to note that the lack of generally agreed and used standards and interoperable platforms can also be a barrier to sharing. If an online resource is only usable on, say WEBCT, then sharing/trading with an organisation that does not use that platform is trickier.

Opportunities and advantages

The emerging digital VET environment has created both complications and opportunities for AShareNet. On the one hand, having materials online creates an urgency to sort out copyright ownership and a cost imperative to use existing resources rather than create from scratch. On the other hand, developers of learning resources have to consider new levels of granularity with the advent of learning objects, however these may be defined. Basically this could reduce the lowest level of currency for materials from say a \$10 note to a 5 cent coin. However much debate exists in the sector and across education about how to define/size such things and generally there is more hype than reality about how to trade or share at the learning object level. AShareNet stands ready to facilitate trading and sharing at any level of granularity but the debate about learning objects, repositories and interoperability has created much noise in the sector and to some extent blurred the basic issue of sharing and trading learning resources at whatever level.

For example, the higher education sector has developed a prototype Collaborative Online Learning and Information Service Project (COLIS); a nationally funded project from the Australian Department of Education Science & Training. This initiative has acknowledged some of the digital rights management issues in that it is seeking to integrate a rights management system to facilitate, track and ensure payment for the exchange of learning objects. (Dalziel 2002). In contrast, AShareNet is a functioning system but it does not integrate with institutional learning management systems as yet. A national review is currently exploring opportunities to rationalise many of the disparate functions across the VET sector so that the product development cycle is integrated.

Despite these complexities and despite the onerous task of adding metadata to cater for search engines, the time is ripe to build on-line business models for the exchange and barter of learning resources.

A trading business model

AEShareNet's own self-financing business model is based on:

- Annual membership fees
- Transaction fees
- Commission fees

To some extent the business model of AEShareNet is dependent on a trading rather than a sharing business model. There are no transaction or commission fees on P and S protocols. The value proposition for state and private organisations is that AEShareNet can make that trading much more efficient than through pre-existing paper based manual systems. In 2003, most interest from Members is in the C protocol with over 60% of listings under this heading. In this sense, AEShareNet is about Members wanting to trade rather than share learning materials. The Sector has not yet realised that AEShareNet provides a vehicle for collaboration and sharing as well as trading. The current cultural pre-occupation and indeed, need for commercial activity to support provider operations is preventing many in the sector from taking the bigger and longer view about the potentials of the AEShareNet services and business model.

For example, AEShareNet can provide a licensing structure for a whole range of VET processes as well as product. Essentially, much of the intellectual wealth/capital of the VET sector is in its processes and services, not just its digital or paper-based resources. The AEShareNet licence service provides for the transaction of intellectual property which goes beyond a learning resource. This licensing service developed by the Australian Government Solicitor, also addresses risk management issues and that users can be assured that while the details on the licences may change, the proformas are sound. Electronic tracking and storage can also reduce other administrative costs. Ironically, the value of such a framework has been recognised by overseas educational practitioners who have become aware of the AEShareNet Model

Another example could be the integration of AEShareNet with a range of other services such as resource repositories (digital or otherwise) and other databases such as EdNA. Putting together a business model that combines these elements is attractive but does mean a series of complex integrations with existing licensor e-shop facilities. As noted above, TAFE frontiers in Victoria has pioneered such an approach and would be worthy of future study in this regard (AEShareNet website 2003). But to be really successful AEShareNet needs to be integrated into a range of other processes in the product development value chain.

Global dimensions

Copyright and licensing issues are of global concern. Tension exists between those who want to maximise IP use through an open source approach and those who see the trading

of IP as a legitimate business within education. In truth, both need accommodating and both need a licensing infrastructure, the sort of infrastructure developed in Australia by AShareNet that has not really been replicated anywhere else.

AShareNet is active in the global community of educational licensing. A world benchmarking study and participation in a Commonwealth of Learning virtual forum are two examples of this activity.

<http://www.aesharenet.com.au/resources/references/157cfrippreport.pdf> (Fripp 2003)

<http://hub.col.org/copyright/index.html> (Commonwealth of Learning Website 2003)

Future directions and concluding remarks

AShareNet has evolved into a learning resource trading infrastructure Service Company. It still does offer a sharing capacity and indeed a sharing name. But that is not the overriding ethos. Its very business model relies on a trading approach.

It is suggested that this evolution owes much to the concurrent developments in VET. So if VET becomes less competitive, more cooperative and less business driven will AShareNet re-invent itself? The recent Kirby Report (TAFESA website 2003) on South Australian TAFE suggests some winds of change may be afoot in the VET sector. Or maybe the AShareNet trading approach will suit both trading and sharing, in fact will put 'open source' models for learning resources on a sounder platform. This is a fruitful arena of activity for VET researchers.

Much of AShareNet's service infrastructure is applicable to all education sectors and one of the future challenges is to map out the applicability and the adaptations required for wider usage. For instance, in the Higher Education sector there may or may not be a more intimate and unbreakable link between the learning resources and their teacher creator.

On a wider front the whole digital approach to learning resources, involving digital objects, digital rights and lock up of resources behind technological walls offers challenges to all practitioners in the sector. A source of vital VET research perhaps?

Other critical issues for research include:

- The need to evaluate the roles and relationships between those involved in the product development cycles with a view to rationalisation
- How much to meta tag and when, or to explore alternatives
- How many repositories does Australian VET need
- How much can VET practitioners re-purpose learning resources and at what level of granularity
- How best to define a learning object for the VET sector

But the more immediate concern of AShareNet is how to continue to build robust business models that will suit the changing nature of public and private VET in Australia. In that regard the extension of service to include all aspects of the value chain of learning resource development and dissemination is seen as critical whether for trading or sharing.

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