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The Power of Practical Andragogues

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Abstract

In the tertiary education environment, educators might assume or suggest that they should have the most significant influence over the way andragogy is translated into online education products. The continuous growth of online education indicates a need to see how we understand who really does have the greatest influence in this area. This paper introduces a model of the broader development process of online learning resources and the way educators, learners and resource developers interact in the process. It reveals a bottleneck of practical andragogy which is currently dominated by resource developers due to their central technological translational expertise. This paper identifies the role of other stakeholders in the development process and aims to lay down critical critical learning points where new resources are required to enhance the online learning environment.

Introduction

Educators have expectations about how online resources should support student learning. Students of all age groups have needs that must be satisfied into resource development. Developers of online resources often ignore andragogical mechanisms in the way a resource development brief is implemented. There are several critical competencies between what students need, what teachers expect and what developers are capable of. This tension is heightened when added to the increasing pressure in tertiary education to deliver expanded online services with more value at lower costs. (Alavi et al., 1997)

This paper examines and analyses the educator-learner-developer triad through a study of three case study organisations actively applying andragogy in the development of management learning resources in an online format. The focus is on the online core issue and the resultant strategic decisions that must be taken in development.

Andragogy Defined

Andragogy is the academic discipline that researches and analyses the learning processes of adults. (Knowles and Associates, 1984) Where pedagogy is a teacher-focused approach to understanding education, especially as it relates to formal learning, traditionally in children, andragogy takes a learner-focused approach especially to adults and assumes greater freedom of learners to influence learning processes. In developing online learning resources, an understanding of andragogy helps designers select the framework that is more conducive to learner-focused learning.

This paper distinguishes between theoretical andragogy as a field of thought about the best ways to generate learner-focused learning, and practical andragogy, which deals with making a learning tool come to life as a usable learning resource. Practical andragogy is related to the process of translating a learning theory into a product to assist learning. Practical andragogues encounter the translational process and significantly influence the end product.

The Research

The authors studied and participated in key elements of production practices during 2001-2004 with three organisations engaged in online resource development in Australia and one in the USA. Each industry study provided the integrated model developed for this paper.

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation</th>
<th>Specific resources studied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>TRENDS at South West Institute of TAFE</td>
<td>The Admin ToolBox:<a href="http://www.switef.wa.edu.au/toolbox/trends">http://www.switef.wa.edu.au/toolbox/trends</a></td>
</tr>
<tr>
<td></td>
<td>TDS at Holmesglen Institute of TAFE</td>
<td>The Small Business Management ToolBox:&lt;<a href="http://www.holmesglen.vic.edu.au/itbox/">http://www.holmesglen.vic.edu.au/itbox/</a></td>
</tr>
<tr>
<td></td>
<td>Deakin University via Deakin Studies Online</td>
<td>Web site to support MMM240 Organisational Behaviour (participation as a section coordinator)</td>
</tr>
<tr>
<td>USA</td>
<td>University of Maryland University College via the online MBA</td>
<td>Web site to support AMBA605: Organisational and the Environmental</td>
</tr>
</tbody>
</table>

The methods of engagement with each of the case study organisations are summarised here:

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Roles of participant observer</th>
<th>Research methodologies and tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRENDS at South West Institute of TAFE</td>
<td>Project coordinator</td>
<td>Participant observation*</td>
</tr>
<tr>
<td></td>
<td>Instructional designer</td>
<td>Interpretation</td>
</tr>
<tr>
<td>TDS at Holmesglen Institute of TAFE</td>
<td>Educational content writer (October 2001-January 2003)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Educational content writer (April 2002)</td>
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<tr>
<td>Deakin University via Deakin Studies Online</td>
<td>Educator (February 2004-ongoing)</td>
<td></td>
</tr>
<tr>
<td>University of Maryland University College via the online MBA</td>
<td>Research assistant</td>
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</tr>
<tr>
<td></td>
<td>Web site consultant (December 2002-ongoing)</td>
<td></td>
</tr>
</tbody>
</table>

* Observation refers to the matrix, "Watch, listen, ask, record." (Baudrion, 2002)

On this basis, we may limit our conclusions to the extent of management education resources, however, it would seem reasonable to extrapolate to other tertiary disciplines in further investigations.

Further, the limitations of bias that might be directed to an interpretative study of one organisation or project may be limited in this instance by the observation of four cases dispersed geographically and culturally. In any case, the selection of an interpretive approach is appropriate for the development of a complex, wholeistic model with a pragmatic context.

In this light, the analysis and conclusions drawn from this study are presented as snapshot of current industry practice. This is especially significant in the context of the continuing paradigm shift in information media that impacts heavily on educational publishers, and on the way research in the industry must be conducted. (Dorsey and Lincoln, 2000)

Critical Observations

Before proceeding to the core model of the paper, here is a list of critical observations drawn from the three year participatory observation of the educational publishing industry. These observations are indicators of foundational interpretive outcomes driving the development of the model.

- The technological can hold a position of power
- The original development brief can be significantly misinterpreted and conceptualised
- Financiers often do not have a clear, practical interpretation of the expected final product
- Financiers/contractors often expect creative interpretation to be borne by resource developers
- Publisher does not always understand the technological implications of design requests
- Developers may not appreciate the creative imperative provided to technologists by financiers/contractors
- Educational theory is often developed out of the paradigm caused by the printing press and not the of the digitised electronic media
- Applications of educational theory in the online environment are driven more today than previously by the technologists due to the nearness of the resourceful online paradigms

The Model

Figure 1 is a representation of the online resource publishing process with emphasis on the cycles of development as a tool for quality production. It was developed by the authors as a conceptual tool during project coordination with TRENDS at South West Institute of TAFE. The process is viewed predominately from the developer perspective along with the needs and constraints of the technological publishers. It is important to think about the publishing process of online resources because there are implications for educators.
Online development process

Quality of finished product is a combined function of productive time spent in stages of development and the number of development cycles.

Figure 2 proposes a model of andragogical influence on the resource development process. It shows the trend of conceptual input from analysts, learners and resource developers. It reveals a backbone of practical andragogical influence stems from the developers. Their position as technical and publishing experts lends to impose on the process to a greater extent than with print resources. This is especially true at the critical learning point illustrated in the model.

Similarly to modern motor vehicles requiring high engineering levels in the exclusion of most amateur manufacturers, on-line resources require higher expertise levels, which naturally impacts on the extent of input non-publishing specialists can have during the latter stages of the development process.
**Model of Andragogical Influence in Online Resource Development**

**Defining conditions**
- Economic
- Social
- Technological
- Industrial
- Political
- Cultural
- Historical

**Key**
- Backbone of practice
- Theoretical andragogy
- Critical bearing point
- Review input points

**Development brief**
The brief is the development contract. It is determined with necessary input from learners and educators, but is driven mainly by the needs, expectations and policies of the funding and contracting entities against the backdrop of a range of defining conditions.

**Defining conditions**
A resource development brief is constructed in a climate of conditions which affect the scope and depth of the final instructions. Aside from the overarching goals and policies of financiers/contractors, account must also be made of economic conditions, current social issues, technological factors, industrial influences and norms, political realities, cultural influences and limitations, and the requirements of history or tradition in the field. Instances of each include:

- Economic: Consideration of the budget of the financier and the likelihood of further funding from the same or other sources for the same or other projects.
- Social: Ensuring current taboos are avoided and prevailing social preferences are built into the design of the learning resource at the level of the brief.
- Technological: Acknowledgment of capabilities and limitations of current technology in the development brief.
- Industrial: Recognition of the specifics, expectations and limitations imposed by the industry for which the learning resource is being generated.
- Political: Recognition of the particular needs and objectives of all the parties that will be affected in the development of the resource. This may include financiers, educators, policy makers, learners, developers, writers, artists and technologists.
- Cultural: Consideration of the cultural expectations, traditions and mechanisms that should be responded to in the building of a learning resource.
- Historical: Retention of context in the brief in relation to achievements and capabilities of the past. Notes the model allows for the brief to be informed by feedback from previous editions of the education product. Obviously, in the case of a brand new product, there is only historical references to similar products that can inform the brief.

**Education product**
The product is the end result of the development process as defined by the brief. Note that, especially for online resources, the feedback loop for subsequent editions remains open, and there is an argument that the immediacy of the online environment necessitates more frequent review and revision. Of course, available finance will determine the extent of revising.

**Theoretical andragogical input**
A conceptual framework for the learning resource must be built into the development brief. The brief strongly determines the andragogical nature of the finished product. Input from educators and learners at the stage of writing the brief is most critical for ensuring currency and relevance of andragogy. Too great a reliance on historical development, economic issues, or any of the other defining conditions, can lead to poorly developed andragogy, which means a product of little value to the ultimate audience—educators and learners.

There is a limit to the active role of theoretical andragogy once resource developers commence their work, therefore, it is important to have the theoretical framework well defined in the brief. Developers necessarily adapt technology and capabilities in the absence of clear directions, which facilitates production but may lead to alienation of original andragogical intentions.

**Backbone of practical andragogy**
A conclusion of this research project is practical andragogy is a kind of transitional practice employed by resource developers during interpretation of the brief and production of the resource.

This leaves the developers in a particularly influential place in the development process. They become a backbone to the process. Increasing technological sophistication in the area of learning is likely to increase the specialist role of developers. Online technology has the effect of integrating andragogy and resource presentation and interaction in a far shorter time frames, and will more
**Critical bearing point**

The critical role of resource developers is emphasized when you consider, once all review stages are completed, there is no further input from educators or learners until the education process is started. The position of effective planning, direction, and execution of the curriculum is critical. The role of the resource developer is somewhat similar, but it also involves the following aspects:

- Input to the design of the resource development process
- Direction and oversight of the development process
- Coordination with stakeholders

**Review input points**

Educators and learners typically have opportunities to participate in practical application during review stages. Quality control generally requires external and internal review of resources in development. Figure 2 depicts several practical application review input points during development. Review input points shown in Figure 2 effectively represent three stages of the drafting cycle depicted in Figure 1.

**Revised edition feedback loop**

Online resources tend to require more frequent updates and evaluations than many print resources. Of course, the feedback received can be used to improve the quality of the resulting OER. Any changes to the online resource, whether minor or major, such as changes to the content or the design, need to be tracked and monitored throughout the development process. This feedback loop ensures that the online resource remains relevant and effective.

**Financiers and reference groups**

The increasing influence of financiers is recognized in this model, just as it is in the development of e-learning resources. Similarly, development and operational tasks include the development of an industry relevant group, which is free from the influence of the market and focuses on the specific needs of the industry.

**The Educator Perspective**

Education is a role assumed for a purpose. The purpose of the role of the educator is to facilitate the development and learning process. At the learner level, the educator is the facilitator of learning, providing support and guidance.

**Figure 3: The educating continuum**

The educating continuum illustrates the dynamic nature of the learning process. The educator as educator and learner as learner engage in a continuous learning cycle. This cycle is facilitated by the use of various learning tools and resources.

Online resources can enrich the learning experience by providing access to a wide range of materials. They can be used as a tool to support the learning process, facilitate collaboration, and enhance the learning experience.

The role of the educator and learner is constantly evolving. The educator must be flexible and adaptable to meet the needs of the learners. The learner must be proactive and engaged in the learning process to achieve the desired outcomes.
encouraged to create or source their own materials, the respect and perspectives students provide generally guide what educators and developers need at the brief, and at review and input points.

In the same constrained way as with educators, learners are scrutinized at the critical hearing point from actively contributing to practical pedagogy in the finished educational resource (product). This is not to say learner input in the revised edit is feedback large, and that scheduled review input is not implemented. Developers simply dismantle the critical hearing point around the end of the process, where the iterative is an on-going schedule, technology capabilities, meta of the process, and other resource limitations, which can lead to other learner preferences down the priority list. There are instances where anecdotal feedback from learners is noted and a solution found, but time, budget, and other resource constraints in the critical hearing point can prevent the implementation.

The Developer Perspective

The developer is the technologist in resource production. Online resources are derivative of sophisticated information technology and so deployed effectively need to be administered by people with commensurate skills.

This places the developer at the center of the model. They become, in effect, a backstop to carry the resource through to final production. As the model in Figure 2 demonstrates, there is an intricate flow of development, learners and other feedback, in all stages, especially the final stage, where what may or may not be created, how and should be formatted, and how other technical specifications may be incorporated.

This is a position of power in a sense, but one essentially requiring good anagogical awareness. Educators who have seen this shift in expertise toward technological specialists have engaged variously in resisting and relapsing in the arts of online production. Conversely, resource developers who felt compelled to better serve the needs of learners and educators have sought training in philosophies and practices of education, however, there remain limitations on the convergence of the educator and the technologist.

This leads to inevitable compromises where what students need, what educators want and what developers are capable of. When the developer cannot conform to student and teacher requirements, they must implement a compromise which, in the context of intended production deadlines, must still include good anagogue, or else the resource will be ineffective for its purpose.

The Accessibility Factor

The momentum of the World Wide Web Consortium (W3C) (http://www.w3c.org) and the issue of accessibility in online resources further drives the developer to the center of the issue.

For example, educators can suggest quite reasonable anagogical activities for translation into the online environment which, due to accessibility problems have to be redirected by the developer to become practical. Changing the structure of an educational activity alters its anagogical emphasis. Educators remain limited in their ability to research an activity in the online environment due to technological and scaling limitations. For example, online searching cannot always be scaled. An activity cannot be translated into a website without scaling to its limits, but these can be translated into technical challenges in all learners.

The critical hearing point in the process is where developers no longer have ready access to educators for advice about the anagogical implications of changes made to accommodate accessibility requirements. Since many accessibility problems arise in the usability testing phase, some necessarily late in the development process, the developer remains in the critical position having to make critical decisions about technological solutions that determine the anagogical nature of the final product.

Application of the model

The growth in online education initiatives at the tertiary levels shows few signs of abating. Very few universities remain with no online component in their courses. Even institutions with a long standing online presence are choosing to retool or add learning resources. If they are not building, they are renovating. (Bennett, 2004)

Colleagues educators need to be aware of the limitations of practical anagogue when they are called upon to contribute to resource development and retooling. Awareness of the framework of practical anagogue and the critical hearing points, in particular, can minimize the unrealistic factor where an educational product is produced which seems markedly different from expectations in regard to anagogical theory.

Financials of educational products may be interested in understanding the ways learner feedback informs development. The limitations on responsiveness to students needs may be counter to some of the rhetoric about online resources. The critical hearing point and the control role of developers as technologists place a natural barrier to real time responsiveness.

Reference group members, especially the management or business disciplines, as practical expressions of the theories being taught, will benefit from knowing how their input can be limited to review input points and reviewed at the critical hearing point.

Conclusions

As educators and developers, we may silently agree they have the power to implement anagogical solutions to technical issues and problems, especially at the critical hearing point. The influence imposed by criticality, and金融危机 appear to vary depending on the industry, the prescriptive (or otherwise) nature of the student audience, the contract and compensatory relationship between the buyers, the authors and the resource developers.

Education policy makers and managers may have the implications of an increasingly pivotal technological function. Policies that may need adjustment in this context include:

- Technological skills of educators
- Educational skills of technologies
- The gap between anagogical theory and application
- Test developers present in the critical hearing point
- Clarity and specificity of the development brief

Conclusion

If there is an opinion amongst educators that they have the limit say in how an online learning resource is structured from an anagogical viewpoint, this industry-based study of the resource development process may challenge it.

The breakdown of practical anagogue is primarily composed of the resource developers with some theory and review input from educators and learners respectively. The critical hearing point is not prior to publication of the online education product is primarily the developers' domain. At the critical hearing point, even where consensus might encourage developers to seek inspiration from educators about the anagogical implications of technological solutions to development problems, time, protocol and resource constraints frequently prevent this.

In addition, increasing technological complexity of online learning resources and the search for refinement and efficiency, exemplified in directions such as W3C, places the developer even more directly at the helm. We may question whether this is a situation that should be changed. At the least, a better awareness of the situation is recommended.

(Sally Brown, 2002) talks of a cultural sociological shift whereby technology resist the individual but now it is increasingly helping define relationships between individuals.

Online management education resources are as keen a part of this change process, and themselves caught in the social dynamics at play.

The model suggested in this study may assist educators, learners, resource developers, financers/contractors and policy makers to review the process and its effects on anagogical development.

The current climate of change in online resources in tertiary education challenges a better understanding of online resource design and implementation toward achievement of quality anagogical objectives.

References


Hypertext References