

the intranet will be overly controlled and therefore not evolve as a knowledge-sharing tool. Information professionals need to do some soul searching to examine if new initiatives that should have become part of their work domain have been assigned to other departments within the organization, viewed as being more directly linked and attune to the core business.

New mind set

One of the key challenges to organizations today is information overload which has resulted in the increased value and importance of cognitive skills including communicating, decision-making, persuasiveness, judgement and creativity. Knowledge-sharing initiatives attempt to address this problem by encouraging a new culture and mindset, which enables organizations to recognize their tangible and intangible resources and how they should be developed and managed. Technological transformation plays an important part in facilitating this change and represents a major investment, but it is not the most difficult aspect in the establishment of a knowledge management strategy. Achieving organizational change is a far more complex challenge, and it is this change process that is the imperative to reaching organizational goals. To play a role in finding new solutions to this problem, information professionals need to understand their organizational culture and work within it to find realistic, pragmatic approaches to knowledge sharing which will have a positive impact on the daily work routine. Whatever initiative is launched should have concrete results for the core business and individuals.

We preach the role and importance of information, but what is really required is "access to the right knowledge at the right time" (1). Information professionals need to stand back and reflect on the learning processes in organizations. The key to achieving the goals of information services is dependent on the capacity to reflect, innovate and change. This requires new ways of looking at things, involving more emphasis on facilitating the learning process in organizations, examining how decision-makers are influenced and understanding their learning styles. It also involves creating opportunities for socialization and the creation of networks and taking the lead in these initiatives.

Information professionals also need to develop a better understanding of the concepts of organizational behaviour in order to take an active part in the change process in their organizations. They must understand not only the client's stated information requirements, but also the organizational and personal issues driving them. The trend to more personalized information systems must be balanced with the requirement for common knowledge repositories in organizations. Information professionals should become the broker between these two imperatives and should assist in bridging the gaps.

An essential factor in launching a successful knowledge management strategy is that it integrates and forms part of the organization's strategic objectives. Unfortunately many knowledge management initiatives are viewed primarily as improving the use of information technology to streamline processes. This is only one part of the picture. Although senior managers realize intuitively that the core expertise of the organization and its strategic advantage comes from knowing more than its individual parts, there are few initiatives that explicitly make the link between knowledge and strategy. Information professionals need to take part in the strategic planning process in order to contribute to making this link. However, this means acquiring new skills, not the least of which is how to use business planning tools and methods.

Leading: being there

Facilitating the sharing of tacit knowledge, as well as promoting coherent approaches to handling internal information, will provide the real added value to our organizations. Leading effectively with knowledge needs to be put on the management agenda and information professionals should be the people to put it there.

1 Keeping Good Company: A Conversation with Larry Prusak *Information Outlook* May 2001
http://www.findarticles.com/cf_dls/mOFWE/5_5/75098169/p6/article.jhtml?term=

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8 October 2002

The final e-Diamond market validation, and the future of eTNA

The EU eTEN programme project, e-Diamond, that UKOLUG has been involved with over the last couple of years came to an end on the last day of January 2004. UKOLUG's principal role was to run the market validation. Initially this involved testing user reaction to the e-commerce model being proposed and more recently re-visiting some of those questions at the same time as we collected user responses to eTNA, the product itself.

eTNA – well the product was developed in Italy – stands for Electronic Trading Networked Architecture. It is an entirely new approach to marketing online, offering a single gateway and search engine access to a range of content suppliers as well as offering the added security of never having to enter personal and credit card information. When it is released, eTNA will develop into a network of suppliers, each with a range

of content providers selling anything from abstracts to applications, flowers to furniture, cars to clothes; and each with users who can purchase goods from across the network. The watchwords are 'trust', 'transparency' and 'reliability'.

As with any new software product, alpha and beta testing help to ensure that the product that is launched is both one that is needed and one that works. There had been a lengthy period of testing prior to the market validation in which some UKOLUG members took part, and the market validation completed the process. The aims of the second market validation survey are to determine the reactions of users to:

- 1 shopping electronically (e-commerce)
 - comparison with other e-commerce products
 - comparison with views expressed in the initial market validation survey
- 2 the eTNA service
 - the user interface; and
 - the search and purchase software.

A survey instrument was designed and tested in the UK before being translated, along with a set of testing instructions, for use in other EU countries. The instructions only offered information on the conduct of the market validation exercise and did not add to the eTNA online User Documentation. Users were asked to log onto the eTNA site and subscribe. When they had received a password and were able to access the site they were asked to browse, search, view products, add products to their shopping basket, purchase, and cancel purchases. The survey was administered in late November 2003. The date for last returns was 14 January 2004. An Excel spreadsheet was designed to provide easy and comparable data entry for all partners/countries. Completed spreadsheets were sent to UKOLUG who produced a master and analysed the results.

The Results

Excluding some 350 questionnaires mailed in France which generated no replies, there were 132 questionnaires sent and 39 (29.6%) returned. The majority of responses (69.2%) came from individuals; only 25.6% claimed to be responding on behalf of a corporation.

The survey results can be divided into two sections corresponding to the areas of research set out above. The comparative e-commerce results will be presented first, followed by a summary of user responses to the software and interface.

The age range of respondents was similar to that in the first survey, with a high percentage of mature users – combine this information with the selected population (largely information workers from UKOLUG, CILIP and the EINS user base), and it can be deduced that this

survey has largely been completed by users who have long experience of using online systems. Some commented on this aspect in respect of the advanced search capability:

The search editor was fine for me as a regular user of advanced search options. However, I'm not sure if that particular interface is intuitive enough for the average user (Case 3)

Whole thing was too complicated and non-information professionals won't bother to work things out. (Case 19)

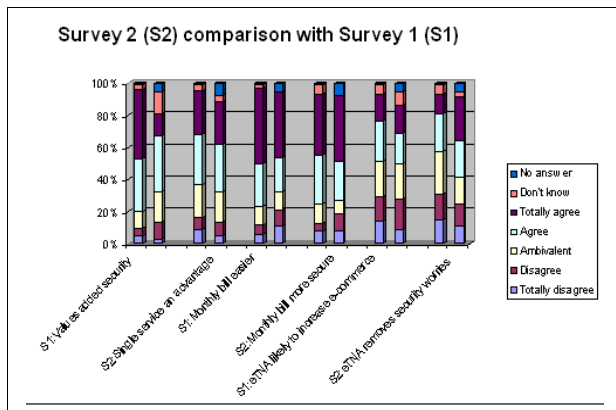
It was hypothesised that most respondents would have purchased goods over the Internet prior to this survey. eTNA was designed with both tangible and intangible products in mind (virtual or electronically-delivered, for example flight or theatre tickets, information products or digital photographs) and the survey was designed to discover the degree to which users had purchased either. It was discovered that while both are purchased quite regularly, intangibles are acquired far less regularly and, in fact, over 53.7% of the respondents had never purchased any intangible while only 2.6% had never purchased a tangible product that had to be delivered physically to them. The survey administrators are thus satisfied that the populations selected had the requisite experience of both online systems and search softwares, and of e-commerce.

The Comparative e-Commerce Survey

One of the aims of the market validation survey was to determine users' views of eTNA relative to their general views of e-Commerce and purchasing goods over the Internet from other sites. Figure 1 demonstrates the degree of agreement with six statements, and also shows a comparison with responses collected in the first market survey. Some tentative conclusions can be drawn with regard to users' views changing both over time and with actual experience of the product.

Overall, Figure 1 suggests that users have not changed their views about the e-commerce approach taken by eTNA. It might have been hypothesised that a further year's experience of purchasing over the Internet would have reduced concerns over security and convenience but this does not seem to be the case. Only for the first statement, "I value the added security of the eTNA system", is there any significant change, with the percentage of respondents who agree with the statement reducing from 75.2% to 46.2% and with less emphasis showing. Much of the change is at the expense of a greater number of respondents who felt unable to comment, and this may demonstrate an uncertainty stemming from a very limited and functionally curtailed use of the system during testing. It was not possible in the time available and without undertaking real purchases for users to experience the overall security of the eTNA environment.

Figure 1: Comparison of views of eTNA with previous survey



The remaining five statements asked for agreement or disagreement as follows:

- A single service such as eTNA for all shopping is an advantage
- A monthly bill is easier than continually giving my personal and credit card details over the Internet
- A monthly bill is more secure than continually giving my personal and credit card details over the Internet
- The eTNA “shopping arcade” approach to Internet shopping is likely to increase my use of the Internet for shopping
- eTNA removes my worries over Internet security.

In all cases there is only slight variation from the responses made before experiencing the system and some 12 months prior to this survey. It can be seen that a majority of respondents agrees with each of the first three remaining statements, while opinions have not changed on the more subjective question on eTNA increasing e-commerce. A slightly greater number now agrees the system removes security fears completely – always an optimistic suggestion, which probably explains the anomaly in the first survey between the first and last statements, “I value the added security of the eTNA system” and “eTNA removes my worries over Internet security”. In this survey the two security statements attract a similar number (46.1%) of agreements.

The conclusions that we can draw from the above data are that:

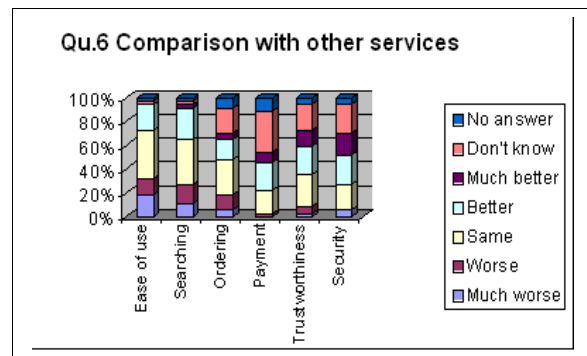
- security remains an issue for Internet shoppers
- no system is likely to completely remove security concerns
- eTNA has satisfied the promises made at the time of the first survey
- monthly billing is seen as an advantage
- eTNA shows every indication of meeting the needs of users in these areas.

The survey also sought to determine how eTNA

compared with other Internet shopping services of which the respondents had experience. A wide range of other systems had been used including:

Abel Labels, Amazon, Argos, CD WOW, Choices Direct, Comet, Crucial.co.uk, DABS.com, Easyjet, eBay, Fat face, Field and Trek, Graham & Green, HQ Hair, Initial Ideas, Jungle.com, Lakeland, Lands End, Lifestyle Foods, Ocado, Ordnance Survey, Orvis, Playcom, Rohan, Ryanair, Sainsburys, Tesco, The Stationery Office, Times Higher, Travelling Light, Vacuum Cleaners Direct, Virgin, and World Books.

Figure 2: eTNA compared with other services



Unfortunately, many users felt unable to comment on areas that they had been unable to try during the test (e.g. making a payment) or of which they had only a limited system experience (e.g. trustworthiness). Even allowing for the limited degree of commitment in these areas, it is clear from Figure 2 that eTNA is generally viewed as similar to, or better than, other systems.

In terms of the payment method, trustworthiness and security, up to fifteen times as many respondents view eTNA as better than other systems – only 2.6% think the eTNA approach to payment is worse than other systems while 20.5% see it as superior. Over 64% of respondents viewed eTNA search options as similar or better to other systems. However, it can be seen that eTNA failed to demonstrate clear superiority in ordering (17.9% ‘worse’ or ‘much worse’ against 20.5% who thought it was better) – probably due to the fact that it is difficult to be innovative for the ordering process. The system’s ease of use (30.8% ‘worse’ or ‘much worse’ against 20.5% who thought it was better) also failed to impress. However, it is certainly worth noting that the multi-layered complexity of the eTNA system, which offers searching across multiple databases of dissimilar products through a common interface designed to hide the complexity from users, is likely to fare badly in this respect. Systems used for comparison are, in fact, not comparable as they all have discrete data sets of similar items.

The consortium clearly cannot be complacent over the results from this question, and many of the comments added to the questionnaires confirm this. eTNA must

ultimately be significantly easier to use and have visibly stronger facilities (searching, ordering, etc) than other systems, as well as having demonstrable and visible trustworthiness and security. It should be noted that had the testers seen the agreement and the eTNA e-Trading Conditions – ‘real’ users would have had to sign these – it is probable that their opinions would not have been so ambivalent. This part of the market survey shows eTNA in a generally good light, but there are specific issues, particularly centred on ease of use, to be addressed.

The eTNA software

The second objective of the market validation was to further test the software, the data structures and the user interface. The questionnaire collected data on user reactions to:

- Accessing the service
- Searching for products
- Advanced search capabilities
- Product descriptions
- Help files and documentation, and
- Ordering and paying

In each section, users were encouraged to comment freely on their experience, and these comments will influence continuing work on the software and interface.

As a part of the testing, users were requested to visit the eTNA website and follow the procedures detailed there in order to subscribe to the service. No additional instructions were given and the only difference between the testers and ‘real’ users lay in the fact that the testers were not required to sign a user agreement. Accordingly, the first question in the questionnaire dealt with the ease of joining the system and logging on.

It is impossible to supply added security without jeopardising the ease of signing up for a system and nearly 36% of respondents found the procedure difficult despite the fact that understanding the procedures was not especially problematic (38.5% found this easy or very easy). The apparent implication of this is that the software routines that take users through signing up and the communications from the eTNA service need to be improved. Some quotations from the questionnaires suggest areas for improvement:

After logging on for the first time and confirming my subscription (not clear which ID I should use ...) I was surprised to find I was not logged in! (Case 10)

When I registered I received many different codes by email and it was not clear which of them must be used for accessing the system (Case 26)

Having logged onto the service, users were encouraged to search for products, to browse, look at the detailed descriptions, to use the help files, to use

the advanced search feature, and to purchase products.

There was some ambivalence over the general ease of navigating around the site – the fact that exactly one-third of respondents did not view it as either easy or difficult suggests that navigation is similar to that on other sites; however, 25.6% thought navigation was easy and 30.8% that it was difficult. We were unable to test the degree to which the difficulty stemmed from some difficulty in understanding the concepts behind the navigation (for example, the need to select a product category before searching for an item, which is necessary to limit the number of databases being searched concurrently by the system, could be viewed as an unnecessary or inconvenient extra step in navigating to the search screen). The multi-layered complexity of the system inevitably makes all aspects of the user interface difficult. A survey of this nature is unable to explore causal relationships between user difficulties and the deep system (as opposed to the interface) and further user testing will be necessary at a later stage.

Despite the above responses to general navigation, locating products was generally seen to be easy (59%), with narrowing or widening a search only marginally less so.

Most respondents seem to have been reasonably content with the amount of information provided. Product information was seen as satisfactory; the fact that this was product information only from a series of test data files suggests that the data structures and amount of data available when the system is launched will be sufficient for users’ needs. Only 23.1% of respondents felt that the help files/online user manual were helpful and informative, and this suggests that some re-writing and restructuring is necessary here.

While it is possible to locate products using a simple search – particularly on the test system containing relatively few product databases – an advanced search is also provided, and some 64.1% of the test population used it. Figure 3 shows the views of these users (i.e. the percentage rates are of 25 users, which is 64.1% of the whole population). Users were asked which of four features/search options they found particularly useful, and in all cases the facilities are generally regarded as useful or very useful. Some comments about the ease of using the advanced features and the high percentage of ‘no answers’ indicate that the interface to the system needs improvement, but overall it is clear that advanced searching of this kind is necessary on eTNA.

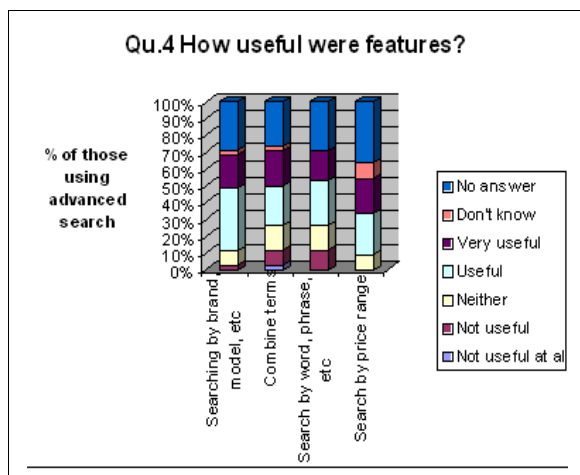
It was too easy to clear the search instead of submitting it. (Case 17)

The search editor was fine for me as a regular user of advanced search options. However, I'm not sure if that particular interface is intuitive enough for the average user - especially since the layout has the query string

builder box off screen. (Case 3)

Almost too cluttered and didn't bother with index to it as it wasn't obvious what it was about. (Case 19)

Figure 3: Opinions on Advanced Search features



Of those who did not use the advanced search feature, 36.4% managed without it and 18.2% did not understand it; the remainder did not answer the question. This statistic, as well as the supporting quotations (below) support the view that this part of the user interface needs attention.

Tried unsuccessfully to use the advanced search option. (Case 15)

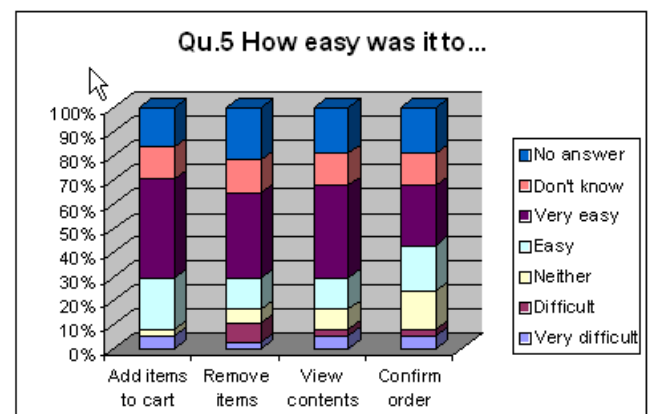
It was not immediately obvious how to use the advanced search. (Case 23)

Figure 4 shows the degree of ease experienced in actually purchasing items once they had been located. It should be noted that, while the testers had the ability to add items to their shopping carts and to confirm orders, they were told that they would never receive or be charged for these items. Users were asked about adding items to their cart, removing items, viewing the content of the shopping cart, and confirming an order. The 'very easy' and 'easy' bands (averaging 48.7% for adding, viewing and removing) signify that there were no real problems here. Confirming orders is marginally less easy (41%) and this may be an area that requires attention.

Confirmation of order is cumbersome having to place orders for one item at a time from the shopping cart. A global confirmation of the whole cart is needed as an option. (Case 10)

Easy to understand ordering. However, an option to print or email confirmation would be useful (Case 21)

Figure 4: Opinions on purchasing items

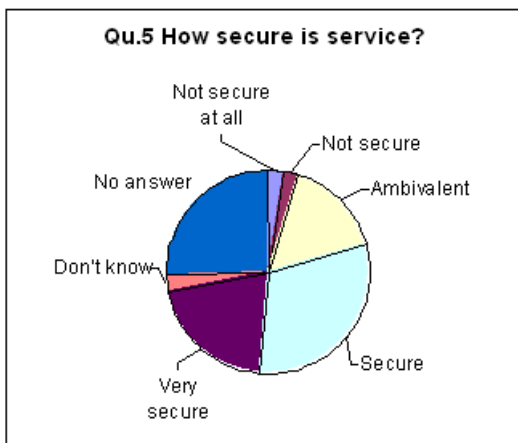


The testers were also asked if the amount of information supplied about the contents of the shopping cart was sufficient. Of those users who gave an opinion, the majority (73.9%, or 43.6% of all users) felt that the amount of information was about right. Additional questions showed that just over 56.4% felt that the procedure for ordering was easy to follow and understand, while 28.2% felt that the billing procedure was clear. Once again, it should be noted that this statistic should be viewed in the light of the absence of the user agreement, which testers had not had the opportunity to read.

Figure 5 shows that 51.3% of users rated the system 'secure' or 'very secure'. Only 5.1% did not regard the system as secure but 15.4% were ambivalent about the perceived security. One of the principle marketing strengths of eTNA is the high level of security afforded by both the system and the fact that user and credit card details do not have to be entered, and this is perhaps a disappointing result.

Once again, this may be due to the lack of a user agreement for the testers; also it worth noting that the artificial way in which testers were recruited (that is, they did not come to the system as a result of advertising or publicity material) could contribute to a lack of understanding about the security features, or their particular strengths. Comments about the difficulty in subscribing show, in part, that users were aware, at least obliquely, of some of the security features. This is an issue that has to be addressed at both marketing and interface levels.

Figure 5: Is eTNA secure?



Conclusions

In comparisons, eTNA is generally viewed as similar to, or better than, other systems. However, there is no room for complacency:

- eTNA must ultimately be significantly easier to use and have stronger facilities than other systems;
- the market survey shows eTNA in a generally good light but there are specific issues to be addressed.

The conclusions that we can draw with respect to security are that:

- security remains an issue for Internet shoppers
- no system is likely to completely remove security concerns
- eTNA has satisfied the promises made at the time of the first survey
- monthly billing is seen as an advantage
- eTNA shows every indication of meeting the needs of users.

Finally, testers emphasised that the software and the interface was 'useful', 'easy', and/or 'helpful' but not to the exclusion of all other comments.

The survey has highlighted a small number of deficiencies or areas for improvement in the software, the interface and the documentation, and it is clear that the consortium will need to address these before the formal launch.

The test user populations were all professional information workers with long experience of online systems, selected for this reason. It was felt that they would be best able to use the e-Diamond/eTNA system and judge it against other current search platforms. Based on the findings of this survey as set out above, it is clear that a case can be made for launching eTNA as an e-commerce platform following a small amount of additional work.

In the light of this market validation, it seems likely that the eTNA e-commerce platform will be launched in the autumn of 2004. While the intervening time will be spent mainly on improving the product and the interface, it will also allow the consortium time to sign up further eTNA Service Providers and Content Providers.

If readers are interested in eTNA, or if they wish to market products or services – or, indeed, become an eTNA Service Provider – progress can be followed and interest expressed via the website: <http://www.et-diamond.net/>

Chris Armstrong and Karen Blakeman

Online

Column Editor: Johanna Westwood, Advisor, University of Wales, Aberystwyth.

EBSCOHOST

EBSCOHOST <http://www.ebsco.com/home/> have announced they are now offering the Columbia Granger's Poetry Database. There are over 50,000 poems in full text, included are also 400,000 citations to poems and bibliographic anthology information. A free trial is available.

CSA

CSA <http://info.csa.com/daai/> have made available the Design and Applied Arts Index (DAAI). This is a bibliographic database of over 500 titles covering subjects in design and applied arts such as photography, textiles and interior design. The database contains 130,000 entries which include relevant articles, news items and exhibition reviews dating back to 1973. Data is also available on designers, craftspeople, workshops and companies. The database includes an Education Directory listing courses in design and applied arts in Colleges and Universities.

DIRECTORY OF OPEN ACCESS JOURNALS - DOAJ

DOAJ <http://www.doaj.org> has a new version with improved features announced this month. Open URL linking is now available and allows journal titles to be linked to directly. Changes have been made to the user interface, to include an increase to 100 titles listed when a result page is displayed. More fields within the record can be searched, such as the language and ISSN. When browsing the subject tree, the number of journals listed under each heading are displayed.