Experience e-learning
An Online Learning Expedition

Report of the efmd e-Learning Group
LIST OF PARTICIPATING COMPANIES TO E-LEARNING PROJECT

ABB - Asea Brown Boveri Ltd, CH
ABN AMRO Bank N.V., NL
AFF - Administrative Research Institute, N
Allianz-Versicherungs-AG, D
Arthur Andersen, CH
Auchan S.A., F
Banco Comercial Portugues, P
BSCH - Banco Santander Central Hispano, S
Boas Consulting, B
Bocconi University, I
British Telecommunications Plc, UK
Cap Gemini Group, F
Cisco Systems Europe, UK
Consultico, D
Deutsche Lufthansa A.G., D
DIEU - Danish International Continuing Education, DK
EADS - European Aeronautic Defence and Space, D
EFQM, B
EIPM - The European Institute of Purchasing Management, F
Ericsson Management Institute, S
ESADE International Executive Centre, S
European Investment Bank, L
Faculdade de Economia da Universidade Nova Lisboa, P
Firmenich S.A., CH
IBM, F
IESE Business School, S
IDA - Improvement and Development Agency for Local Government, UK
ING, NL
Inspiration, B
Instituto de Empresa, S
Irish Management Institute (IMI), IRL
Janssen Pharmaceutica, B
MiL, S
Nijmegen School of Management, NL
Niveau, DK
Norwegian School of Management, N
Novartis International Ltd., CH
Philip Morris Europe SA, European Union Region, CH
Pirelli S.p.A., I
PricewaterhouseCoopers, NL
Roffey Park Management Institute, UK
Siemens AG, D
Solvay S.A., F
Sulzer Infra, CH
The World Bank Group, USA
Toyota Motor Europe, B
UBS AG Private Banking, CH
Unilever, UK
University of Nijmegen, NL
Volkswagen Coaching GmbH, D
# Table of Content

- **What is EFMD?** ................................................................. 3  
- **EFMD Corporate Services** .............................................. 3  
- **Professional Development** .............................................. 3  
- **Organisational Development** ......................................... 4  
- **Conferences and Practice-based Learning Groups** ............. 4  
- **Learning about E-learning by doing E-learning** ............... 4  
- **A Snapshot** ..................................................................... 5  
- **Section One** .................................................................... 6  
- **E-learning about E-learning, Report of EFMD’s Exploratory Expedition** ....................................................... 6  
  - Our Approach .................................................................. 6  
  - Business ......................................................................... 8  
  - Content .......................................................................... 9  
  - Relationships ................................................................. 10  
  - Technology .................................................................... 12  
- **Section Two** .................................................................... 14  
- **E-learning about E-learning: The journey continues** ........ 14  
  - Theme 1: The Importance of Shared Understandings and Expectations ......................................................... 18  
  - Theme 2: The Importance of Creating Reciprocal Value .................................................................................... 21  
  - Theme 3: The Importance of Supporting Open-Ended Learning ........................................................................ 25  
  - Theme 4: The Importance of Putting Learners in Control of their own Learning .................................................. 29  
  - Theme 5: The Importance of Facilitators, Coaches and Mentors ................................................................. 33  
  - Theme 6: The Importance of Sharing Different Kinds of Knowledge in Different Ways ..................................... 38  
  - Theme 7: The Importance of Making Learning, *not* learners, Visible ............................................................. 44  
  - Theme 8: The Importance of Metaphor for Making Meaning and Surfacing Assumptions ................................. 49  
- **Conclusion** ....................................................................... 50  
- **Section Three** ................................................................ 53  
- **Annex One: Learning the E-way: "It was the Telephone conference and the cafés that were the real kicks!"** ............. 53  
- **Annex Two: Authors Biography** ...................................... 60  
  - Timothy Phillips ................................................................ 60  
  - Jean Adams ..................................................................... 60  
  - Bente Thomasen .............................................................. 61  
- **Annex Three: E-learning Website** ..................................... 62  
- **Annex Four: References** .................................................. 65
What is EFMD?

The European Foundation for Management Development (EFMD) is the premier professional network of management education and development across Europe and beyond. Our mission is to promote excellence in the management development profession.

We believe:

- That management within the context of an organisation is the ability to get the best out of people for the optimal – and shared – benefit of all stakeholders.
- That development is realised through academic preparation, practical formation and the provision of adequate experience and incentives to managers.
- That excellence is achieved through identification, constructive debate and permanent improvement of standards.
- That to promote is to seek consensus, awareness and wide recognition of such standards and values, both within and beyond our membership network.

Most of the leading business schools across Europe and beyond are members, as are over 100 major international corporations which want to learn from others and by sharing their own issues. In addition, EFMD is the custodian of standards in good practice for its profession and industry, for the schools via EQUIS, the worldwide accreditation standard for business schools and increasingly for corporate practice too.

Generally, EFMD’s goal is to support corporate performance directly by helping to sustain a dialogue between theory and practice.

EFMD Corporate Services

Is for practitioners in corporations wanting to learn from the experience of their peers by sharing their own experience. We offer a variety of tailor-made services to our members, supporting their management development processes. The EFMD corporate members’ network, which currently connects more than 100 international and European corporations, and represents 1200 professionals, is an excellent forum for networking and information exchange on leading edge management development.

Professional Development

EFMD delivers LINK (Learning, Innovation, Networking, Knowledge), a unique European programme for fast track new management professionals. Focused on practical needs, faculty is composed of management development practitioners from leading companies and consultants. EFMD also helps its corporate members to design, manage, deliver and evaluate in-company training for their employees. Utilising the extensive EFMD network allows the use of the best professors and trainers throughout Europe for a truly pan-European view of business education.
Organisational Development
We have launched the “CLIP - Corporate Learning Improvement Process”, since corporate learning and knowledge management are key issues for the sustainable development of companies.

The purpose of CLIP is to design a quality assessment and development tool for company training centres and corporate universities. The working party consists of chief learning officers as well as heads of corporate universities from leading European companies and financial services.

Conferences and Practice-based Learning Groups
We run an annual Corporate Members Meeting that focuses on current concerns, allows sharing of best practices and new approaches. The “efmd Corporate Members’ Day” is a review session of outputs generated from the past year activities and the agenda for the coming year.

We run a number of learning groups and special interest groups. Goal is to exchange real practice based experience with experts, discuss pitfalls, and analyse success stories within an open and confidential environment. The groups work with leading practitioners, consultants and academics. We regularly publish reports based on the results of those working groups. Lead by the members, we have an active process for selecting new topics in response to our members’ needs.

More info: Shanshan GE, Manager, Corporate Services, Tel: + 32-2-629 08 27, Email: ge@efmd.be

Learning About e-Learning by Doing e-Learning
The European Foundation for Management Development organised an adventurous learning group on e-learning. A group of 65 brave people started their expedition in January 2001 and the project ran until April 2001. This report reflects the lessons that these pioneers who were exploring the implementation of this new learning medium in their organisations learned.

Section one is an article by Tim Phillips that was published in the efmd FORUM magazine (01/2). The issues of working with e-learning is covered from four main angles: business, content, relationships and technology.

Section two is a report by Jean Adams and explores e-learning by means of height key themes. The following eight important themes are covered:

- Shared understanding and expectations
- Creating reciprocal value
- Supporting open-ended learning
- Putting learners in control of their own learning
- Facilitators, coaches and mentors
- Sharing different types of knowledge
- Making learning, not learners, visible
- Metaphor for making meaning and surfacing assumptions

Section three covers the contribution from Bente Thomassen. She encourages us to look at learning styles and the interactions that could be offered in a virtual learning environment for extrovert e-learners and for guardian or artisan or idealist or rational learners.
A Snapshot

Experiential learning about learning is a big challenge, and to apply it to e-learning while that topic is still in its infancy is definitely adventurous. Virtual teamwork on a work task is hard, but is becoming widely familiar. Virtual teamwork to do learning is a step beyond a work task focus – and is still tough, unexplored terrain for many. It is worth doing, because it explores a new business frontier: integrating learning into e-business.

Lessons Learned

About the risks an e-learning implementation runs, and about where it may fit within the range of learning solutions available to internal and external providers of learning to organisations. Our practical learning points included:

- Distinguish between e-training (one to many, Instructor driven, e.g.: in a known skill) and e-learning (many to many, Learner driven, e.g.: creating new solutions).
- Clarify and link e-learning applications to short and long term business goals.
- Carefully define the learning task focus and its business contribution.
- Define resources needed, relevance and fitness for purpose.
- Learning how to e-learn is a start-up investment well worth considering.
- Learning team formation, motivation and focusing is another key investment.
- Build trust – it is essential for effective distance learning.
- Provide skilled online facilitation, especially for e-learning. It is essential.
- Blend e-training and e-learning in before, during and after classroom sessions.
- Use e-training and e-learning tools to link doing the job with training and learning.
- Provide technology which is fit for purpose, simple to use, speedy and reliable.
- Pay careful attention to time management and keeping commitments. Openly communicate all priority changes.
- Provide an e-learning Users Technical Support Helpdesk.

Clearly, normal learning rules apply in the new medium, but come in some new guises.

A major perception which emerges from reviewing our e-learning experience, is that e-learning could, in practice, become a powerful approach for increasing the rate of learning across an organisation. If so, when its techniques are assembled and mastered, and its technology has improved, e-learning could become a core part of competitiveness.
SECTION ONE

E-LEARNING ABOUT E-LEARNING, REPORT OF efmd’S EXPLORATORY EXPEDITION

By Tim Phillips
With input from: Anna Sofia Orozco, Elizabeth Hawthorne, Charles Savage, George Por, Gareth Morgan, Simon Brown and Carolyn Dare

This is the story of the journey and lessons learned in the efmd Learning Group of January to April 2001, and it is dedicated to the intrepid e-Learners who created it. Hail! Brave hearts! Our Theme was: Learn about e-Learning by doing e-learning on the subject of e-learning. The project was certainly not for the faint hearted, and was particularly hard for those whose priorities or perceptions changed en route.

Our Approach

George Por, an expert in online learning communities, from Community Intelligence Labs (and now INSEAD), was our Advisor. He summarises working with e-learning under four headings:

Business:
What business model of value creating inputs and returns will best support a learning journey that could yield large gains?

Content:
What is to be learned, how are the process and the output to be organised, and what knowledge is needed to help that happen?

Relationships:
Who are the learners and their guides, and how do they relate: what are their roles, relationships and their decision making processes?

Technology
What technical infrastructure does e-learning need, and what software will help the learning process evolve most flexibly?

We put technology last, to indicate its supporting role. Business is an essential parameter, as learning must earn its way like the rest of what we do, and an e-learning infrastructure, plus the time it takes, are both costly. Content comes next, because we see it as the key attractor in any learning enterprise. We include relationships, because we hold that learning is a social activity for humankind, a social species if ever there was one.

This report uses the categories to define, via questions, the main issues of our journey, and then to summarise our lessons learned. One over-riding impression is that in e-learning it is only the e- which is new. Learning is as old as humanity – otherwise we would still be living in the open, at the mercy of bolder predators, with no soul, society, tools, art, literature or material wealth to our name.

efmd e-Learning Report
Experience e-Learning: An Online Learning Expedition
e-learning brings up all the pedagogic, didactic and learning issues you have ever come across and more, with the same importance but often in subtly new disguises. Examples from our experience are:

- Manage your time tightly, to goals and to a plan.
- If you are not there, you cannot learn.
- Miss the online lecture, and you have to catch up somehow.
- Miss your group’s interactions, and you have to go without your learning or find time to play catch up later.
- Group size affects group dynamics, even for virtual groups.
- Group roles are as important to group effectiveness, whether virtual or face to face. They need signalling in a clear, shared set of terms and adherence in use for progress to happen.
- Learning goals and outcomes must be shared & clear, for virtual as for visual media.
- The learning programme’s structure and plan must be as well thought through, and as flexibly interpreted.
- Expectations of what is in it for the learner require as much careful defining, sharing, nurturing and rewarding.

Because the medium is new, trainee aids are particularly important. Team role tools, (e.g. Belbin) learning style tools (e.g. Honey & Mumford), repeated clarification of roles and responsibilities, aids to easy finding your way around the website – all must be used to help beginners master their first e-learning experiences on the nursery slopes, with successes applauded and few disheartening setbacks.

Wise online facilitators are as valuable to the e-learning group as skilled and loving parents are to the family. Motivation and commitment are as important here as in the classroom. More so, for it is easy to slip away unnoticed from an online community and to leave your fellow learners to discover your revised priorities the hard way.

We discovered that this form of learning too has to be appealing to the learner, just as does classroom work. If the e-learners find it interesting, meaningful, necessary and important, plus a possessing a little lightness, then their motivation is more likely to remain strong.

Experiential learning requires strong, process oriented coaching, to move the learning community forward. Learners at a distance need affirmation from their colleagues, in part from responses to their contributions, and also from some kind of structure to encourage them to stay and work in the community. The group came to see both as essential in the new e-learning environment.

Other issues that emerged from reflecting on our experience were:

- Individuals must establish learning goals.
- The coach must work with each member of the community to see that they achieve their desired outcomes.
- Structured milestones help maintain focus and momentum.
- Find common threads to bind the community, or individuals will drop out.
e-learning implementations need to be planned as change management exercises, using the normal change management tools and disciplines to help adults learn new more productive ways.

e-learning best practices we feel will come to throw light on specific classroom teaching and learning processes, to the mutual benefit of both. Blending e-learning with classroom and on the job training and learning are clearly highways forward. Evaluating the effectiveness of training and learning irrespective of media will be boosted by e-learning’s arrival. There is scope for comparative study here.

It is not about the technology. The process in which each member was engaged seemed to be formative in their own learning. A deep sense of understanding of the e-learning experience that no lecture, book, or article could provide was gained by many. Excitingly, some members found that reflection on their own learning was not limited to anecdotal evidence classifying into ‘theory’, convictions, or principles. Many found the nature of their learning experience led them to seek out the ideas of others, to process different perspectives and to want to learn more and make their learning more deeply embedded and also generalisable. e-learning is about learning and understanding at the content and at the meta levels. It’s not a simple conveyance of information: e-learning is about people - and is a social experience. Our group members are thoughtful, articulate voices for new approaches to learning in the workplace and in universities. It didn’t come easily, but it was worth it.

Business

What business model of value creating inputs and returns will best support a learning journey that could yield large gains?

Learning, and e-learning, need to be thought of as just another business process within the organisation.

The organisation’s internal IT infrastructure needs configuring with learning as well as the other business process flows in mind.

Time to learn is another major cost input. Because of this, it is essential to get the e-learning process’ tools and techniques well rehearsed.

Enhanced individual and collective capabilities across the organisation are the principal immediate returns. These include: speed, more people being up-to-date, faster customised learning for individuals, groups in passing yet costly business situations, clearer control (including its ethical dimensions), facilitated effective in-depth communication, geographic and time convenience, and more focused learning by doing. These are all benefits from the e-approach to organisational learning.

Therefore, harvesting value from e-learning needs a strategy for applying the above capabilities to solving business issues and creatively using business opportunities.
The business risks are that the leadership will not understand or model the new working behaviours needed for e-learning, that departmental barriers will inhibit collaboration, and sectional-based incentive schemes will in effect continue to drive what people do into separate boxes. e-Learning is an integrator and needs the right organisational conditions.

Implementation risks to an e-learning (or e-training) investment will come from the technology not being fast or flexible enough (especially for groups inclined to blame their tools rather than recognise their own need for development) and crucially from team skills being inadequately defined, practised and rewarded.

**Content**

**What is e-learning and what is e-training?**

e-Learning is not e-Training, and the subtlety and depth of the difference needs very thorough exploration. e-Training is inherently pedagogic, Instructor driven, content driven, and is commonly one to many. Its goal is to deliver one, known in advance, body of knowledge or instruction or set of skills to many people, in many widely separate places, within one tightly defined time frame, to predefined standards. Its efficiency can be assessed with before and after tests, and its effectiveness can be measured in terms of its impact on the business performance of the units whose members took the training. It has grown up from computer based training into web based training delivery. And it has led creating marvellous ways of linking classroom training to doing the job.

e-learning is inherently andragogic, learner driven, discovery led learning. It is usually the collaboration of many people, separated by distance, and sometimes by organisations and time as well. They learn together to understand a new field of knowledge, or to create new knowledge, services or products.

Its efficiency could be tested by exams. Its effectiveness may take longer to show up than e-training’s, but should be detectable by the e-learner being able to imagine, design and deliver radically new business activities compared with their earlier capability.

We discovered that using technology as a learning medium and learning aid really does require personal attitude and behaviour changes, and some of us rediscovered just how hard that can be!

**How can e-learning best be understood and implemented?**

With Gareth Morgan’s help particularly, we came to see e-training and e-learning as delivering:

- Cost reduction: this is being achieved frequently.
- Improved accessibility: as above.
- Increased quality: not there yet, in many cases.
- Personalised, collaborative learning at a distance for new products, services: just beginning

We came to understand e-learning’s evolution in three generations – so far:

- 1st Generation: e-Training Instructor Driven. Traditional courses and text put on line. Also, Help screens for process training, linked to training modules and suggestion lines. Organised in a linear fashion.
• 2nd Generation: Learner Driven, self-organising and evolving, and capable of being accessed at any point for "just in time" learning on a "just enough" and "as needed basis, and simply understood as e-learning, but using today’s limited range of Internet media and so delivering a narrow range of sensory stimulation and interactive capabilities

• 3rd Generation: Learner driven, built on a "second generation" platform with advanced interactive technology using a full range of media giving a richly interactive experience, with text, voice, pictures, movement across the net – requiring much more advanced software and bandwidth than most have today.

George Por adds that Gareth Morgan’s model can be defined another way at its 3rd Generation level. Here, e-learning can be depicted as group, or collaborative, learner driven. Both routes require a richer array of interactions, put 2nd Generation in an interim, essential position and envisage faster, richer rates of learning. It is a mistake to omit the 2nd Generation orientation in 3rd Generation designs.

With Albert Angehrn’s help, we experienced implementing change in an organisation, using a computer-based simulation. Shared reflection showed us that collaborative learning across time and distance could require new working habits in some of our organisations.

Simulation learning can help generate a deeper understanding of what has to happen, and is happening, in a change process.

But, we noted simulations presume a set of relationships and responses, which may differ from a particular reality: there is a pedagogic issue to be handled when using one to aid an organisation’s change process.

We conclude that implementing e-learning is an exercise in organisational change, and needs effective, proven Change Management tools and techniques. Here, e-learning benefits from an existing competence.

**Relationships**

*How many people make a good sized e-learning project?*
*What roles and relationships are essential for effective e-learning?*
*What learning skills and relationships does e-learning require?*
*What are the pitfalls and the success factors?*

We discovered that online learning groups of 10-20 are practical, but group sizes of 20-30 tend to have learning quality and learner commitment issues, unless considerably more and more experienced online facilitation and leadership skills are available.

We used George Por’s communities of practice design. It combines Business Project Teams, an online resource (the Cybrary), Scouting Parties (i.e. learning teams) formed around generic application issues shared by their members, and Learning Leadership Groups formed around the principal issues of group leadership as they express themselves in e-learning and online communities. Each Group had a
Facilitator, and had to form and monitor its own members’ performance contract.

The eight Scouting Parties that the e-learning Group members decided to set up were:

**Culture Vultures:**
Overcoming in-house barriers to using e-learning well

**SOFT:**
Mastering the complex, human, learning side of e-learning

**Technology:**
Making and using an attractive e-learning portal

**Measurement:**
Measuring the success of an e-learning implementation

**Business Case:**
Building the decision making road map for integrating e-learning

**NRG:**
What motivates, engages, rewards, and energises the e-learner?

**Top Dogs:**
Creating an e-learning process which works for senior managers

**Blenders:**
Blending classroom e-training and e-learning media successfully

The Online Learning Community Leadership Groups are:

**Community Co-ordinators:**
What fosters shared learning?

**Knowledge Architects:**
Managing the community’s knowledge (the Cybrary)

**Keepers of Questions:**
Distilling out the questions which provoked real learning

**Community Co-facilitators:**
Facilitating online conversations is key to success

**Keepers of Summaries:**
Map the essence of conversations and ideas created

**Technology Champions:**
Innovatively combine proven and emerging technologies

Leadership aficionados may recognise some of the core aspects of leadership highlighted within this set, and may note similarities with the Servant Leadership approach.

Naturally, group members’ initial expectations must be most thoroughly explored, exposed, examined, reset and managed. This is particularly important so early in e-learning’s ontogeny, as individuals’ expectations and preconceptions are wildly divergent.

The unfamiliar concepts and group roles needed for e-learning must be fully explained, explored and owned by the e-learners, before they start the virtual phase. Particularly, understanding and mastering online group behaviour and group leadership, and learning how to work with online Facilitators, are critical skills for online learning group members, as are basic online group attendance and work ethic disciplines. Trust in each other’s real agendas, commitment and reliability simply has to be built, and this all takes a lot of time and structured effort.

Not all our groups met their goals. The principal pitfalls seem to have been:

- The need to learn about this specific was not there, or was not sharply enough focused.
- Online facilitation was too weak.
• The growth of trust and respect did not happen enough.
• Wanted e-training skills rather than an e-learning experience.
• Competing work priorities drove e-learning down the list.
• Difficulties with the technology.
• Needing new, higher levels of personal IT literacy.
• Work or personal discipline made it too difficult to make time available in a structured, predictable way.
• Sheer commitment to the goal and task was not strong.
• Sheer, good, online group leadership needed to be stronger.

Technology

What are e-learning technologies?
How reliable are they?
What do they do, and where are they going?
What advances are needed?
What are the necessary technology platform components for e-learning communities of practice?
Who are the providers?
What are the key technological questions to ask?
What are the pitfalls to be avoided?

Do not go live until the technical framework has been tested, and has been used in a pilot exercise. Technology crashes are always a nuisance, and for e-learning can have very negative consequences, because they damage the learner’s trust in their new, unknown space.

Ease of access for the user is key. Requiring additional software downloads, and relying on site access going right the first time when being tried for the first time on the live event, is unwise. Murphy’s law applies in cyberspace too.

Do not assume your corporation’s IT infrastructure will always be friendly to new e-learning ways. In-house Bandwidth restrictions, small but mission critical software or software version incompatibilities, and – crucially – sheer Corporate Firewall power can all frustrate e-learning. In effect, the IT Department becomes the arbiter of who has access to what learning opportunities. This is a key policy issue; so, taking your IT colleagues with you from the start is advisable.

Using Gareth Morgan’s e-learning software taxonomy, we came to understand current providers as falling into four categories, with combinations of low or high Content and specific or comprehensive technical capability.

Low content, specific capability providers will help you start doing specific learning activities – e.g.: distance learning via chatrooms; sametime voice, text and diagram online set-ups.

High Content, specific capability providers will help you put your existing material into a form suitable for the net. This can be CBT courses made net accessible, or classroom courses chunked up for using online.

Comprehensive capability, low content providers will help you have your own e-learning environment, with learning management, personal learning space, shared working spaces and even learning – work task integration features.
These are effectively portals, or gateways to learning, which can house other applications – so long as they are not tightly proprietary.

**Comprehensive capability, high content providers** will create content customised to your own needs, from your own and others material. They will help you fit it to your business process, and combine it with your chosen e-learning environment. They will provide outsourcing services to the extent you require.

Below is a summary diagram, with some example of providers:

**High Capability**

<table>
<thead>
<tr>
<th><strong>PORTAL PROVIDERS</strong></th>
<th><strong>CONTENT CUSTOMISERS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>High Functionality software frameworks</td>
<td>Help you create your own e-content</td>
</tr>
<tr>
<td>- Saba</td>
<td>- GP</td>
</tr>
<tr>
<td>- Docent</td>
<td>- Digitalaccess</td>
</tr>
<tr>
<td>- Isopia</td>
<td>- Quisic</td>
</tr>
<tr>
<td>- Intellinx</td>
<td>- NewMindsets</td>
</tr>
<tr>
<td>- Getronics</td>
<td>- Brightwave Learning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SPECIALIST TECHNOLOGY COMPANIES</strong></th>
<th><strong>CONTENT TOOLS COMPANIES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tools etc assemblies needing content</td>
<td>Authoring systems &amp; CBT on the Net</td>
</tr>
<tr>
<td>- Centra</td>
<td>- Authorware</td>
</tr>
<tr>
<td>- iPrism</td>
<td>- Dreamweaver</td>
</tr>
<tr>
<td></td>
<td>- Macromedia</td>
</tr>
</tbody>
</table>

**High Content**

All the above four approaches can be very 1st Generation e-learning. The goal is to work with a 2nd generation e-learning provider who is already making strong moves towards being a 3rd Generation provider. Some are beginning to emerge, with the technical capabilities, content access and open architecture that collaborative learning requires.

We also came to see that although the technology purchase decision seems to dominate organisations’ approaches to e-learning implementation, there are severe pitfalls on this path. Unless the strategic purpose and the range of evolving business needs to be served by e-learning are very clear, for the whole organisation and its full range of stakeholders, the software purchased may not be optimally helpful for long.
SECTION TWO

E-LEARNING ABOUT E-LEARNING: THE JOURNEY CONTINUES

By Jean Adams

In a bold leading-edge move, efmd invited “the adventurous” to join a three months e-learning expedition to learn about e-learning by participating in a hands on e-learning experience in early 2001.

Here is an excerpt from the website announcing the project:

Experience e-Learning
January 2001 - April 2001
WELCOME

- Does your organisation intend to implement e-learning?
- Do you want to increase your chances of a successful implementation?
- Do you learn by doing as well as by thinking?

Then join the efmd Virtual Learning Group on e-learning. Find out what e-learning feels like, and how it can be implemented successfully.

We will learn about e-learning, by participating in e-learning.

E-learning is becoming an increasingly powerful tool to support corporate learning and is revolutionising the way education and development are delivered. In this project efmd will bring together leading experts in the field and assess the strategic and organisational implications for developing an e-learning strategy. This will be supported by a wealth of practical information which will assist and guide you through your e-learning journey. …

During the 3 months, we will work with learning objects, virtual field trips to interesting places of e-learning, celebrity guest presenters, and will have time for each participant to work on his/her project supported by the collective intelligence of the learning community.

The response was strong. Sixty-five people from 18 countries and 44 organisations in the corporate, academic, consultancy and public sector joined the expedition. Participants had the opportunity to meet face-to-face at introductory and wrap up conferences. They self-organised around topics of interest and these small groups moved online as “scouting parties” to learn about e-learning. Online lectures were offered approximately every week.
Participants could retrieve lecture material that was posted in advance and remained online for the duration of the project, and ask questions or offer comments that seeded online discussion. Facilitators and programs organisers were organised into leadership groups that offered help and advice to the scouting parties whenever needed. In the latter part of the program, the “project building” opened and participants could post the details of their projects and work with others who were involved in similar ventures or interested in contributing their expertise.

There were ups and downs along the way – the journey was “not for the faint hearted” as Timothy Phillips, Director of **efmd** Corporate Services at the time, reported. The overall view expressed at the end of the expedition was one of guarded enthusiasm:

“A major perception which emerges from reviewing our e-Learning experience, is that e-Learning could, in practice, become a powerful approach for increasing the rate of learning across an organisation. If so, when its techniques are assembled and mastered, and its technology improved, e-Learning could become a core part of competitiveness.” See section One

This paper builds on the general findings reported by Timothy Phillips in “e-Learning about e-Learning: see Section One. It is written from my role as a learner and participant/observer, action-researcher involved in the e-learning experience.

The purpose is to elaborate on some of the key learnings from the **efmd** expedition and share the insights and ideas that have emerged as my research continues.

**Methodology:**
The research methodology is an action research framework with a focus on positioning for the future using a composite of participant-observer, qualitative, and action-learning methodologies. For the three-month project, I observed the online interactions across the **efmd** expedition website and participated in the online lectures. This gave me an inside view of the activity online in “real-time” from a learner’s perspective that has been invaluable for interpreting the data. As a general practice, I keep a learning journal about what I am observing and learning on a daily basis. This coupled with the field notes I created during the project and the data captured on the CD-ROM rendered by **efmd** is the basis upon which this paper is written. Since I did not attend the two conferences and have not met face-to-face with the expedition participants, the paper is based solely on the electronic interaction and learning.

A thematic analysis of the data has been summarised as key patterns and key learnings emerged. A comparison of the activity within and between small groups, online lectures and open forum discussions in the café’s has produced a rich understanding of the e-learning activity. The “resonance” and “relevance” of the findings for practising managers involved in e-learning projects is the criteria for evaluating the research results.
However, one of the “best tests” for action research is the change and learning that it generates.

This paper is written and shared on behalf of my fellow expedition members.

The ideas are a synthesis of some of the lessons learned that can help further the development and use of e-learning technologies. As many before me have said, the e-learning field is new territory that is largely uncharted. The observations and insights in this report are related to an inter-organisational context where the purpose of the three-month project was to explore e-learning.

It is important to recognise that each context is unique and knowledge gained in one cannot necessarily be directly applied to another. However, with this caution in mind, I offer my findings as a way to provoke new insights and ideas that can help individuals and organisations in their e-learning endeavours.

Research Findings:

Unlike conversation that occurs in the moment, online dialogue consists of thoughts, insights and personal knowledge that is “captured” in a database. This presents both opportunities and challenges. On the opportunity side, knowledge that is captured can be retained as part of organisational history and shared with others as the basis of new learning. However, the large volume of the captured data online presents a challenge. In the efmd expedition, millions of words were generated over the three-month period.

From both a learner and researcher perspective, this can be overwhelming. As the online context becomes richer with recorded insights, retrieving and presenting the learning in meaningful ways becomes more and more challenging as more and more possibilities for summarising the findings emerge. Timothy Phillip’s article (see Section One) offers a high level overview of the experience and is essential reading for a full understanding. I have chosen instead to focus on a few of the key learnings by sharing some of the thoughts, ideas and knowledge created by the expedition members within a framework of the relevant literature I have reviewed since the expedition.

The eight key themes that will be explored in this report related to e-learning are:

The importance of:

• Shared understandings and expectations
• Creating reciprocal value
• Supporting open-ended learning
• Putting learners in control of their own learning
• Facilitators, coaches and mentors
• Sharing different types of knowledge in different ways
• Making learning, not learners, visible
• Metaphor for making meaning and surfacing assumptions
The agreement at the onset of the journey stated that the intellectual capital generated belongs to the whole expedition. This is very much the approach I am taking.

To describe each of the key themes I have extracted participants’ comments from discussion threads across the e-learning site to provide a composite view. Some of the material in quotations has been slightly modified to improve grammar, fill in gaps, and protect anonymity. I have used this approach for presenting the findings to create an inside view of what has been learned from a learner perspective while protecting the confidentiality of individual learners and learning teams.

The relevant literature, the challenges facing those wishing to create effective e-learning experiences and the key learnings are outlined for each of the eight themes.
Theme 1: The Importance of Shared Understandings and Expectations

As issues facing organisations and society at large grow more complex, the need for continuous and collaborative learning becomes critical because the “one-brain” approach to problem solving is no longer effective. A fundamental assumption underpinning collaborative learning is the human capacity to create shared understandings and expectations.

Here are some reflections from expedition members:

• “The "mutual understanding" factor is very important for me – because for me to explore with you, I want to know what you believe about learning, the values and principles you hold about learning. And, I need you to have an understanding of what I believe so that we can discuss / debate issues with some shared assumptions and understanding.”

• “Through these discussions, we are building the foundations for future discussions. There are about 60 people here – and everyone has choices about who they interact with – and I know that I will be more motivated to tackle difficult "bits" with others who share similar assumptions.”

• “In many ways I am still in familiar territory in that the "content/context" of the discussions is comfortable for me; but the feelings as a participant have not always been comfortable. The next steps will, I suspect, not be familiar. As I "get to know" some of the other participants, I have a clearer idea of what they think and feel about learning, groups, organisations, possibilities, and what's important. I have a sense of who might be able to help and support me in moving to new areas of learning. For me to be able to do that openly, I need to have a connection with people – so that I feel OK about making myself vulnerable – and they know enough about me to be interested in supporting me and using me to support them in other things.”

Creating shared understandings relates to the social dimension of learning. Many learners need to get to know the other members of the learning group to discuss or debate issues, tackle difficult tasks or other challenges the individual or group may face, and feel safe enough to express personal views honestly and openly or ask for help.

Communities of Practice:
This social dimension of learning is supported by Etienne Wenger’s research related to “communities of practice” – communities that are continually engaged in learning through the ongoing development of practices. In communities of practice, learning is not solely a cognitive process, a separate activity, or extraneous goal in itself. It’s about developing and engaging in new practices and creating new meaning as a cohesive group.
Wenger suggests that communities of practice are founded on *mutual engagement* of the participants where practice (i.e. what they do) is embedded in the community itself; *joint enterprise* through shared goals and shared accountability to each other; *shared repertoire* of resources for negotiating meaning in the community can include language, artifacts, stories, routines and specific actions among other things. (1998: 73 - 85) Thus, membership and experience within in the community, and participation in “practice” inform, and transform each other. As Wenger writes: “We create ways of participating in a practice in the very process of contributing to making that practice what it is.” (1998:96)

Communities of practice and learning are everywhere – at work, at home, and in social contexts. People generally belong to several at any given time and membership constantly evolves and changes. Central to Wenger’s social theory of learning is the process of negotiating meaning and social identity. He argues that without a sense of identity, communities cannot learn, or create meaning and knowledge. (1998: 220) Identity, which includes both “identifying as” and “identifying with,” is a dual process that “we do ourselves and something we do to each other.” (1998: 191) Through identification, group members define themselves; through negotiability, they participate in creating meaning. Both processes intertwine to create individual and community identity.

*Learning Teams:*

Peter Senge, the Learning Organisation theorist, also advocates the importance of shared understandings. He argues that “deep down, we are all learners” (Senge, 1990: 4). This shared understanding creates a context where collaborative learning generates synergy that enables learning teams and learning organisations to achieve together what no one person could achieve alone. Creating contexts where “collective aspiration is set free and where people are continually learning how to learn” (Senge 1990: 3) is very appealing. Equally appealing is the capacity to make decisions, solve problems and create new knowledge based on the intellectual energy and innovative new ideas people can contribute within a vibrant learning context. Learning teams become the source of continuous learning and improvement that enables them to deal with new contexts and complex situations, and rapidly share this knowledge organisation-wide.

*The Challenge:*

Although many participants clearly recognised the importance of shared understandings and expectations, this was difficult to achieve in the online context where dialogue takes time and face-to-face interaction in this international project was limited to the initial two-day organising meeting. Some felt that shared understandings could be gained by clearly defining focal issues or questions for exploration and learning. Others felt that a shared understanding would emerge through gathering knowledge and sharing stories. Still others felt the key was to simplify important questions to find common ground upon which to build.
Here is a comment that expresses the dilemma many groups faced:

- “The trick is going to be ensuring everyone (especially people who were not able to participate in the chat) understands how we arrived at our conclusions, leaving plenty of room for everyone to contribute, check out assumptions and offer their point of view etc., then, finding a way to move on to structuring our “deliverable.”

In some groups, the challenge itself created shared understandings. Here’s mention of the “e-Scape” problem—a term expedition members used to describe those who were absent:

- “I have some good feelings about our discussions now, and this also draws me closer to you as individuals. We are developing some sympathy structures and common understanding/goals in the group. I also appreciate your attempts to involve our eScapes in the group. This is done in a very caring and sensitive way. Will we see more of that quality in the group as we develop?”

Others thought a rigorous group building process might be part of the answer. Here’s a reflection about a previous positive experience:

- “In my positive experience, we all had a shared purpose but we also understood how to work with one another. We did this by going through an extensive amount of group process in the beginning; establishing norms, agreements, cyber-cafes, and more. I used to hate going through this group process ‘stuff,’ but in retrospect I think this had something to do with the success and my positive experience.”

**Key Learning:**

Creating shared understandings and expectations can be a major challenge for e-learning groups. Many learners find it impossible to move to tasks without building bridges of understanding first. Others want to get going in almost any direction by focusing on a specific task and letting shared understandings emerge. The tension between the need for making connections through shared understandings and taking action on agreed tasks can stalemate e-learning groups. Groups that can not resolve the task-relationship paradox spin their wheels and limp along or self-destruct. Groups where key members take the lead, invest time and energy in one approach or the other to help the group get started, and invite others to join them in the process can resolve the tension. Sometimes this creates breakthroughs (e.g. coping with eScapes and reflecting on success) that enable individual and team learning to emerge.
Theme 2: The Importance of Creating Reciprocal Value

As people’s time is stretched by conflicting priorities, the need to deliver clear value for the time and effort invested in e-learning programs becomes a critical success factor. When learners are convinced value is created through the online experience, they are willing to make a commitment to learn and interact with others, otherwise they “eScape” and move on to other priorities.

Here are some insights:

- “For me, I find I give my energy freely when the task has some passion and some learning for me. If I find I need someone to ‘put pressure on me,’ that is the time I look into what I am committed to and see how to bring it the energy it needs.”

- “There must be sufficient value for people to return to a website and interact with others. Only after several experiences in which they learn and have some fun, will this involvement turn into a habit.”

The value created in e-learning communities is linked to the benefits gained from networking and creating knowledge. For example, the focus for learning in each scouting party in the efmd expedition project was tackling shared problems and issues to find best practices that could be shared expedition-wide. Value created in e-learning contexts is generated in the breakthroughs and new knowledge that can be used to improve and possibly even fundamentally change the way things are done. This differs significantly from e-training or traditional classroom courses where the main focus is the development of specific skills and procedures that delivers incremental improvement by training people to comply within operating norms.

- “What made that previous e-learning experience rewarding for me was:
  - Interesting and challenging subject matter.
  - Access to a network of peers through study groups and tutor groups with common aims.
  - Sharing real experiences with practicing managers to add and cement the academic learning.
  - Trust between peers (this wasn’t always present and adversely affected learning when absent).
  - Sharing the challenges with others.
  - Getting to know really interesting and fun people”
Accounting for value as intellectual and relationship capital:
For the members of the efmd expedition, collaborative learning was a core aim. Participants were invited to chart new territory together by experiencing a new way of learning using a new medium. For those who actively participated, value was realised through the creation of new knowledge and new relationships.

These intangibles are often referred to as intellectual capital and relationship or social capital to emphasise the value created for organisations when people learn and work together. Intellectual capital, a concept first introduced by Thomas Stewart, is defined as “the sum of everything everybody in a company knows that gives it a competitive edge” (Stewart, 1997: ix). Relationship capital, sometimes called social capital, refers to the capacity to create new value by learning and sharing knowledge with others (Stewart, 1997: 77). Stewart explains: “Every company depends increasingly on knowledge – patents, processes, management skills, technologies, information about customers and suppliers, and old-fashioned experience. Added together, this knowledge is intellectual capital” (Stewart, 1991). This approach is one way of accounting for the intangible value created by learning networks formed around e-learning programs that generate knowledge and relationships that in turn can create new value when applied to products and services that increase overall wealth and well-being.

Creating new knowledge:
The question of how value is created in e-learning contexts can be directly linked to the creation of new knowledge. Research about continuous innovation in “knowledge creating companies” by Ikujiro Nonaka and Hiro Takeuchi is based on Polanyi’s (1966) distinction between tacit (informal, personal, context-specific) and explicit (formal, codified) knowledge. They have developed a two by two matrix to describe the knowledge creation process and dynamic interaction between tacit and explicit knowledge as socialisation (tacit to tacit), externalisation (tacit to explicit), combination (explicit to explicit), and internalisation (explicit to tacit). Knowledge creation in organisations, they argue, is a continuous dynamic process that is triggered by events and interactions. For example, sharing personal experiences and assumptions triggers socialisation (tacit to tacit) where sympathised knowledge is created. Dialogue and collective reflection triggers externalisation (tacit to explicit) where conceptual knowledge is created. Dialogue and collective reflection triggers externalisation (tacit to explicit) where conceptual knowledge is generated. Networking across the organisation triggers combination (explicit to explicit) where systematic knowledge is the output for a new process, product or service. And, learning by doing triggers internalisation (explicit to tacit) where operational knowledge is created. This model emphasises the importance of creating “enabling conditions” and supportive contexts where people can interact and collectively facilitate knowledge creation. (For more details, see Nonaka and Takeuchi, 1995:62 – 73)
Knowledge creation and conversation:
Traditional approaches link knowledge and truth. Knowledge creation is a process of assessing alternatives, weighing them relative to others and then determining the “best” way, “one right answer” or “the absolute truth.” Knowledge is authoritative. It creates closure around issues and actually “closes down,” rather than opens up thinking because the arguments are so complete and convincing that the issues and “truths” soon go unquestioned and become internalised. A postmodernist approach to knowledge is completely different. It assumes there is no absolute truth, no absolute set of facts that are true in all situations at all times no right answer or one best way. In this view, knowledge becomes context and experience-based. Knowledge is open, evolving and relative to people and situations, rather than absolute and closed. Knowledge can be generated through many means in many places. Everything is open to debate and reinterpretation to surface the hidden assumptions that can provoke new insights and understandings.

Gareth Morgan, an organisational theorist, takes a post-modern perspective where knowledge creation is generated through “reflective conversation” that is “exploratory rather than evaluative” – similar to “what happens when a group of craftspeople come together to exchange views.” Morgan urges us to open up the discourse on knowledge by inviting a wide base of “conversation partners” to reflect, critique and present alternate views that can generate new thinking, new shared knowledge, and new actions. (Morgan, 1983: 405 – 407)

The Challenge:
The interesting dimension in the creation of value in an e-learning context, unlike more traditional learning forums, is that learners must also create value for each other. In other words, it is not acceptable to just take other peoples learning and knowledge because learning needs to happen at three levels – individual, group, and organisation-wide.

In a collaborative context, value creation becomes a two-way process where learners must be aware of the value they can gain, as well as the value they can add for others. This two-way process of giving and taking insights and ideas, or learning and teaching, feeds on itself to fuel new learning where the value created by the whole is greater than the sum of the parts. As a result, e-learners need to ask: “What can I contribute to create value for others – that will in turn create even more value for all of us?” Here’s how one group stated the point:

- “A traditional way of learning and working is “give me the stuff, I will do my project on my own and it will be perfect.” This way of thinking is strongly focused on "What I may take from this group" and not on "What can I give to this group?". This traditional way of learning is impossible in distance learning, when – as in this efmd experiment – the principle is creating knowledge from our collective resources.”
The value created in e-learning communities is linked to the creation of knowledge. The focus of collective learning is tackling shared issues or problems and creating new insights and best practices. Value is generated by the discovery of breakthroughs and new knowledge that can be directly applied to the issues at hand and fundamentally shift the way things are done. This differs greatly from e-training or traditional classroom courses where the focus is training people to comply to set work routines and standards.

**Key learning:**

Value can be created for individuals through networking opportunities, creating new knowledge, enjoying a variety of learning experiences, and learning with others. However, gaining value in a collaborative online context requires a significant commitment. Learners need to acknowledge that creating value is a two way process where they must be prepared to contribute insights and ideas to benefit from others’ knowledge.

Accumulating value can be a frustrating, slow process for some learners. Tension grows as they invest time and energy without getting the “answers” (i.e. the learning) they came online to find. Assessing how much time, energy and personal knowledge to contribute before there is a reasonable return on investment can create frustration and friction for everyone involved. When value does not accumulate fast enough, learners leave and the whole learning community suffers because there are fewer and fewer contributors. There can also be tension created because some learners seek networking opportunities (relationship capital) while others are more interested in task or operational expertise (intellectual capital).

New knowledge is created as learners openly share their reflections on current and past situations, compare insights and ideas, ask questions and contribute tacit and explicit knowledge. This collective knowledge creates new value that sustains the conversation and learning process as learners accumulate relationship and intellectual capital that can be invested in existing or future projects.
Theme 3: The Importance of Supporting Open-Ended Learning

Early experiences with web-based learning can be a very unsettling. The touchstones of classrooms and physical meeting places, visible instructors and concrete print medium that are taken for granted in traditional models of training and education are gone. People generally feel lost, confused and frustrated because everything has changed. This disorientation can be even more pronounced for those who have had little experience with technology.

Here are some excerpts that describe what many were feeling as they embarked on personal learning journeys in this new medium:

- “I have decided working virtually is much like entering a new culture – whenever I have moved to a new culture, like China for example, for the first few months (and maybe longer) I am not clear on the rules of the road, things that seem similar are not, and every situation is slightly off or ambiguous. Because of language challenges, I am nervous about asking questions and usually feel more comfortable sitting back and observing the unspoken rules of survival. Much the same online, the trouble is if I sit back observing for too long given the speed of this environment, I’d miss the plot.”

- “How do I feel? - Overwhelmed with the amount of information on the site and with my choices.

- Somewhat frustrated and impatient because I can not find a fast track to get up to speed and join you.

- Nervous about making my first input because I have not experienced and developed the common language and understanding the rest of the group seems to share. There is a kind of informality in your communications that comes from knowing.

- Intrigued by what my experience means about how others will experience e-learning.

- Aware of my 'technological' shortcomings - some learning here too, a lot of my “customers” lack these skills too.”

Mastering the technology side of the challenge is the first step. People soon move into a new phase of confusion as they try to keep up with everything that is happening online. Unlike a book or traditional course, the information available in an e-learning forum is not confined to specific topics or timeframes in the traditional sense. People can go online and contribute anywhere and anytime they wish. A phenomenal resource of information grows as people share their feelings and what they are learning. But this also feeds a form of confusion:

- “I think I am into the second wave of confusedness. After the first victories of finding my way through the system and joining interesting discussions, I am now overwhelmed with the information available, not least of all the links that good people are providing. I need ex-formation to not get lost in the jungle.”
The internet is an open-ended medium. People can explore whatever topic they want whenever they choose. Everything is interlinked and access is just a click away using hotlinks or “favourites” that can be bookmarked for fast access to particular forums or helpful resources. This creates unprecedented freedom for learners. They are no longer constrained by having to be in class at a particular time, or spending hours in lectures waiting to learn the few things that are really important to them personally. Well-designed web-based learning systems enable learners to drill down to the specific information they need just when they need it. But, the open-ended nature of the medium and learning experience can also be very frustrating and overwhelming because the range of options and ever-increasing volume of information available. Building in support mechanisms becomes critical to learner success. People need guidance and support to master the use of technology. Then they need to be supported in finding ways to cope with the open-endedness of the medium itself and the enormous volume of information that quickly accumulates.

Unprecedented freedom: The authors of the runaway best-seller, *The Cluetrain Manifesto*, describe the open-ended nature of the medium in this way:

“… the Net has given new legitimacy – and free rein – to play. Many of those drawn into this world find themselves exploring a freedom never before imagined: to indulge their curiosity, to debate, to disagree, to laugh at themselves, to compare visions, to learn, to create new art, new knowledge…

Hypertext is inherently non-hierarchical and anti-bureaucratic. It does not reinforce loyalty and obedience; it encourages idle speculation and loose talk. It encourages stories.

These new conversations online – whether on the wild and wooly Internet or on the (slightly) more sedate corporate Intranets – we are generating new ways of looking at problems. They are spawning new perspectives, new tools, and a new kind of intellectual bravery more comfortable with risk than with regulation. The result is not just new things learned but a vastly enhanced ability to learn things. And the pace of this learning is accelerating. In the networked marketplace it is reflected in the joy of play. On company Intranets it is reflected in the joy of knowledge. But it’s getting difficult to tell the two apart. Employees go home and get online. They bring new attitudes back to work the next day. Enthusiastic surfers get hired and bring strange new views into corporations that, until now, have successfully protected themselves from everything else. The World Wide Web reinforces freedom.” (Levine et al, 2000: xxxi – xxxii)
The Challenge:
Finding effective ways to support people while they acquire the skills and self-confidence needed to interact successfully with the web-medium and explore the learning opportunities available to them online is critical for effective e-learning. Here’s an exchange that illustrates the challenge:

- **Learner A**: “I am feeling a little lost, actually, as to the structure of this. What am I supposed to be *DOING* when I log on to this group every day? Am I missing something – I am keen to be involved.”

- **Learner B**: “What a brave question you ask. This is like a large virtual swimming pool. Diving into it is a challenge in itself since there are so few shallow areas. … This is indeed an exploration expedition and a pioneering effort at that.”

- **Learner C**: “When I was 6 years old, I went to my first swimming lesson and the coach threw me in at the deep end where I floundered, groped for the edge and promptly threw up! While I can swim OK, my style and breathing have never been quite right! Now kids use kick boards and floats and are encouraged to enjoy and not have any fear.

So yes, I think some virtual water wings would be helpful. On the other hand, I think I have learned more by having to do it myself – I am still "on the fence" about HOW much support is optimal.”

Not only is it necessary to consider how much support is optimal, the question of what types of support are most appropriate and effective also needs to be addressed. Thus, creating support structures in an open-ended medium for meeting specific needs of individuals and groups as the number increases and people’s expectations, technology expertise and learning styles differ becomes a significant challenge.
**Key learning:**

A lot of up-front planning, preparation and energy went into the efmd e-learning expedition. The program was kicked off with a face-to-face session designed to enable participants to meet fellow travellers and expedition organisers before the online journey began. Every group was assigned an experienced facilitator to assist in virtual group process and general problem solving. Technology experts surfed the web-site day and night responding to cries for help as well as providing one-on-one help by email. Some group members went out of their way trying to re-engage those who were frustrated and having trouble in the new medium. Even with all of these sources of support close to half the expedition members left the project before completion which is not unusual for web courses and projects.

There are no simple answers. Engaging and supporting people in open-ended learning is a complex topic. More research is needed. However, it seems likely that learner expectations, timing and commitment, and perceived value for effort expended all have an impact on success rates. One recommendation is to survey learners both informally and formally about their experience and success at various points in the learning process and respond to their needs on a one-to-one and group basis. Another option is to pair experienced learners with others who are less technology savvy to build early success and long term commitment.

An important lesson learned from the efmd experience is that intervention needs to be swift when frustration and confusion are evident and support must be specifically targeted at people’s needs. Chances are that even one unpleasant early experience will block further learning and future success if left unactioned. Other ideas for supporting open-ended learning are explored in some of the sections that follow.
Theme 4: The Importance of Putting Learners in Control of Their Own Learning

In the late 1990s, e-learning was considered the “killer app” that would revolutionise the way people and organisations learn. The market was predicted to grow from $234 million in 1997 to close to $17 billion by 2004. These predictions for widespread use and success were based on the belief that e-learning could a) reduce the cost of training and education, b) increase accessibility to content and courses, and c) improve the quality of the learning experience.

Cost reduction and accessibility are realities. However, there is growing concern that the quality of the e-learning experience, more often than not, is unsatisfactory. Here’s an interesting comment made by a participant in the e-learning expedition:

- “I see people
  - struggling with the technicalities
    (although it’s getting better)
  - struggling with alignment in their groups about what they should be doing and how
  - struggling with getting orientated in general

I believe there is very little receptivity to interventions from the outside as long as this forming/storming is taking place (when your mind is already full, it is a waste to be confronted with more questions).

What I see going on is Action Learning in the most exquisite form.

A picture: it's like opening a dance school where the only thing known is about dancing. But nobody knows the steps. They have to be developed as you dance... There are no teachers, no experts. But once the dance is created, everybody will be very proud and in full ownership.

Now, not all people are familiar or comfortable with this way of learning. So what we could do (if anything, I'm not sure) is to simply mirror the process, telling people "this is what we think is happening" – and encouraging people to go on.”

The reference to action learning surfaces some critical underlying assumptions about e-learning. The comments that “nobody knows the steps” and “there are no teachers, no experts” emphasise the exploratory learn-as-you-go nature of this experience. Notice that the solution offered isn’t to instruct or tell people what to do. Rather it is an approach that encourages and pushes people to make sense of the situation for themselves by embracing the principles of action learning.

Since web-based learning is open-ended by virtue of the medium of delivery, every learner sets out on a personal learning journey. Similar to the principles that underpin action learning where action-learners are in control of what they learn, the open-endedness of the web medium frees learners to explore and discover what is relevant and meets their personal needs.
Online learning becomes a just-for-me learning experience. The implications are far-reaching. The instructor-driven approach that drives classroom and course-based learning is inadequate in this new medium. A new learner-driven pedagogical approach is required.

Early experiences with e-learning have been disappointing for many learners as a result of the technology focus that is driving the market and the poor quality of content or learning design. Here some excerpts from the expedition:

- “I also share some of your experience of the loneliness and separation that you spoke of in your post. And I too am wanting to learn how we can bring more of the ‘smile and the coffee break’ to this strange medium. For me, these past few weeks have really challenged my capacity for self-directed learning and, at times, the technology has felt more of a barrier than support.”

- “One of the big problems that I see occurring in organisations here, is that the new e-learning / e-training is either:
  - run by IT people – who often have the knowledge and skill to develop whiz bang sites – but the technology “runs” the learning agenda in that the "learners" can only operate within the frameworks set up by the technology (and in my mind, that framework is based on the IT needs / ideas, not on effective learning theory and practice). In my experience this has been a major “turnoff” for on-line learning and training. (an example: The issue of whether we need a “training manual” has been raised. There is already a "Guide / Tutorial" section, there is a FAQ section, the Agendas and Workspaces have tutorials attached – yet many people do not use them (including me!). One of the learnings from this program needs to be how do we, in our own programs, support the technology needs of learners when what seems very sensible, such as online training/guidance does not seem to be working for many people).
  - run by educators / trainers who think it’s just about putting content on the screen – and that somehow, people will be inspired by sitting in front of a screen for hours reading (and many of them spend all day at work in front of a screen and may be doing the program at night). And to be truthful, some academics while knowing a lot about content, leave a lot to be desired in their knowledge about "learning".”

The innovative integration of web-technology and content design to create effective and meaningful e-learning experiences is rare. Little or no attention has been focussed at improving the quality of e-learning by challenging and changing the underlying pedagogy.
Elliot Masie, a thought-leader in the field makes the point in this way:

“The easiest part of implementing e-learning has been the technology. The toughest part is to invent and innovate the content to create new models of experience for delivery with this technology.”  
(Rosenberg, 2001: 38)

Open Space Technology:
An interesting alternative to instructor-driven models for learning is embedded in Harrison Owen’s work in “open space” which is based on the self-organising capacities of systems. It’s a technique for engaging large groups of diverse stakeholders in addressing complex issues. The idea grew out of a frustrating experience where Owen spent a year organising a traditional conference only to realise that coffee breaks – the only part not planned – were the real excitement. The following year he tried an experiment. The monumental job of pre-planning was set aside and participants sat in a large circle for the first couple of hours and planned their own three-day agenda. It turned out to be an energising experience that has been effectively replicated time and time again in a wide range of organisational contexts.


The principles are:
1. Whoever comes is the right people – By attending, people show they care.
2. Whatever happens is the only thing that could have – Focus is on the here and now, not what might-have-been.
3. Whenever it starts is the right time – Inspiration and creativity are rarely time or deadline-driven.
4. When it's over it's over – Do what you have to do and then move on.

The Law of Two Feet states:  
If at any time you find yourself in any situation where you are neither learning nor contributing, use your two feet and move to some place more to you liking – Unhappy people are unlikely to be productive.

Owen argues that all systems are open and therefore self-organising. Thus, the search for total control is little more than illusion. He advocates “minimalism with a vengeance” suggesting that “nothing but the essential need be included.”  
(Owen, 1997: 78) The Four Principles and One Law create and protect “open space” where conversation, learning, and action can emerge. Facilitators play an important role in both “creating space” (context) for the exchange to begin and “holding space” by maintaining a safe place for the interaction to continue. (1997: 94)

The Challenge:
The underlying pedagogy of conventional learning models where instructors and experts take control of the learning process needs to give way to new learner-driven models to improve the quality of e-learning experiences.
This is a significant challenge as the following comments suggest:

- “You have articulated my 'thoughts' perfectly with your point that "learning events have to be varied to keep everyone engaged." Yet in order to achieve this, the program designer must understand or assess the learning style of the participants.”

- “In analysing this situation, I started thinking about learning/work styles. The online group in which I was involved before joining this project had a shared purpose, but the shared purpose couldn't sustain the group. I 'think' there is some connection here between understanding learning styles and the success of working/learning online.”

- “I have been sharing what I am learning with my colleagues – not for the discussion content on e-learning, but for what it reflected about the experience of e-learners. I ask myself why I shared it? Is it because I am used to learning through personal contact? Or is it an essential part of learning? If it is essential, what changes need to happen to learning cultures to provide this back up?

I am wondering, I guess, if the notion of an e-learning community stretches beyond the boundaries of the learning group, to include those with whom I interact in the workplace.”

Does this mean we need a different learning culture for e-learning? Or, have we always needed this extended learning culture – but never had, at least in my experience – to support classroom learning?

This topic is very complex. There were far more questions about how to design meaningful e-learning experiences raised by expedition members than there were answers.

**Key Learning:**

The internet can be a powerful tool for designing very customised “just for me” learning experiences. However there is more to this than meets the eye. The technology mindset that has been driving the industry has created platforms for systems based on limited learning principles. Traditional learning designs need to be re-examined to move from an instructor-led and expert-driven learning philosophy to a learner-driven model where learners are in control. Dr. Gareth Morgan, one of the online lecturers in the expedition, referred to this as the transition from first generation to second generation systems that support learner-driven, self-organising and emergent learning. This is a fascinating field of inquiry and the focus of my present research. I believe lessons can be learned from Harrison Owen’s research (open space technology) and the power of simple rules as a foundation for action-based emergent learning.
Theme 5: The Importance of Facilitators, Coaches and Mentors

Throughout the efmd e-learning expedition roles and responsibilities were shared among various Leadership Groups formed to foster and support a healthy learning community.

The Community Co-facilitators leadership group, for example, outlined its role and expectations as follows:

- “Skillful hosting of learning conversations makes or breaks the success of e-Learning communities. Our e-Learning expedition is supported by a team of professional on-line facilitators, some of which will work closely with this leadership group. Thus participating in this group represents an extraordinary opportunity to develop/increase one’s facilitation skills in a “learning by doing and receiving feedback” mode.”

- “Our task:
  - To adapt and be sensitive to the differing needs of different groups.
  - To take care of those who do not participate.
  - To challenge the process if it gets stuck.
  - To watch the energy level.
  - To make the process explicit in a gentle way.
  - To focus on the human being and help people to succeed.
  - To focus on process, more than content.
  - To see the interaction in and between the groups.
  - To notice whether people are listening to one another.

- To go beyond the words on the screen to have the sense the energy and the feeling.”

The Community Co-ordinators leadership group also took responsibility for group learning and posted its role and expectations in this way:

- “The formation of an e-Learning community requires careful attention from a self-selected subset of members interested to understand what fosters shared learning. The extent of that attention strongly affects the evolution of the community and reaching its learning objectives. This group is for people who feel comfortable with both the big picture and the details of what makes e-Learning communities work.”

- “Community Rhythm: As each of us is also participating in a different Scouting Party, could you take the initiative to do some sensing, and perhaps stimulate a mini-dialogue on some of the elements that help foster a creative and open community. They might include establishing a rhythm of work, a set of values, a mission statement, a set of norms, etc. These should be light, not heavy, and they should foster interaction rather than getting people bogged down.”

Members of some of the Scouting Parties were also interested in exploring ways to support learning and skill development.
Here’s a selection of excerpts from one of the discussion threads:

- **Learner A**: “I have facilitated thousands of face to face groups – and one of the challenges is to get mutual acknowledgement and understanding of the "soft and the hard" and then align those different elements.”

- **Learner B**: “The best systems whether face-to-face or virtual seem to have a strong mentoring or coaching component that really helps unite people into small learning groups which can then progress to allow individual or group advancement into ever more refined levels…

My personal feeling now is that such mentoring to be effective will require truly high levels of shared commitment – and an unusual level of organisational patience and support. You have experienced some of that here as those with real commitment post content with real shared value. This is a very young discipline and the best expressions of it are often subtle.”

- **Learner C**: “Interesting that you bring in the idea of mentoring/coaching here. I had not thought about the discussion in this context, but I see the relevance.

So, there may be two aspects of feedback in play here:

1. where the person giving feedback is the helper (mentor - coach - supervisor) of the one who gets the feedback

2. where both parties are somewhere in a process towards creating something in common - where feedback functions not so much ‘comments on the person’ but rather ‘comments on the language’."

- **Learner B**: “You have experienced between us how a mentor coach can aid interactivity here. I truly believe we have an opportunity to form groups of learners not dissimilar to the ideal of ancient Greece. We have our forums...we can come together, teachers can teach in small assemblies of committed learners. Coaches or mentors can help guide the process. Such an ideal is really using high tech to accomplish low-tech objectives.

Imagine how difficult such a method of learning would be in the face-to-face world, where the physical cost of time and resources to assemble such groups is really prohibitive. This is subtle and only the experience of it can prove it, but it is the goal, without question for many of us – especially those of us with the most experience with the technology…”

The above discussion raises interesting questions about the importance of feedback and the integration of the roles and responsibilities of facilitators, coaches and mentors in virtual learning contexts.
Virtual Teams:
Individuals, teams and organisations need powerful technology supports to become “smarter together” as travel costs and security concerns increase. These technology-assisted teams are often called virtual teams which researchers Jessica Lipnack and Jeffrey Stamps define as those where people “work interdependently with a shared purpose across space, time, and organisation boundaries using technology.”

Here are three categories of virtual teams (Lipnack and Stamps, 2000: 62 – 67) based on membership and task responsibilities:

- **Distributed virtual teams** have members who are distributed in space and time by working in different locations within the same organisation, or at different times because of shift work, job sharing or part-timing.
- **Cross-organisational virtual teams** have members from different organisations, or fundamentally different parts of organisations, who work together on common projects.
- **Combined distributed and cross-organisational virtual teams** pose a major challenge as people from the same and different organisations work together across time and space. Since synchronous real-time and face-to-face interaction becomes extremely difficult, knowledge sharing and problem solving in combined distributed and cross-organisational virtual teams can be extremely challenging.

The efmd e-learning expedition is in the last category which Lipnack and Stamps designate as posing a major challenge to conventional team processes and procedures. It’s the nature and variety of links between team members that creates significant differences between “in-the-same-place” teams and virtual teams. This additional complexity offers opportunities as well as challenges. The challenge is to find ways to retain the benefits of traditional face-to-face teams while exploring new modes for working and thinking together. (2000: 25)

Lipnack and Stamps also emphasise that trust becomes even more important in virtual relationships where team members rarely meet or see each other.

Supporting and motivating successful e-learning:
In a report authored by The Masie Center and ASTD titled “E-Learning: If we build it, will they use it?” (June, 2001), the importance of creating a supportive context is emphasised. Research indicates that one of the key drivers for success is having champions talk about the courses or content available and help learners make the links between learning and performance.

The study also found that managers can play an important role in e-learning when they explain the importance of learning, link content to the job-at-hand, show genuine interest in the learner’s accomplishments, and assign peer support when necessary – especially to reduce or eliminate frustration with technology. The survey results indicate that intrinsic motivators and personal development plans drive most learners. e.g. Over three-quarters of respondents felt that the skills they were developing would benefit them both inside and outside their organisation.
The Challenge: Everyone recognises the importance of facilitating process and learning. However finding effective models is a major challenge. Here are some of the concerns identified by the Community Co-Facilitators:

- “The challenge:
  - When we cannot see people, how do we pick up on the subtle, non-verbal cues?
  - How shall we know which kind of facilitation approach will be appropriate for each group / conversation?
  - Does the content expert also facilitate the process? Or should the facilitator stay out of content?
  - Are we each attached to a scouting group, or is it more ad hoc?
  - What will be the protocol for the way we participate (as facilitators) in the larger group?
  - How is the pattern of communication different on-line?
  - How do we manage overlapping roles, e.g. teacher / member and facilitator?
  - How do we pick up subtle cues and remain sensitive to one another’s process when we are online?
  - Is our role to facilitate the discussion, or rather to facilitate learning?”

Facilitation was identified as a weakness in the article written by Timothy Phillips see section one. However, pinpointing the precise source of the problem is a complex undertaking. Related issues like group size, comfort level with technology, expectations, experience in online facilitation, leadership roles, learning needs, and commitment need to be considered to fully understand the problems and offer alternatives for improvement.

Acknowledging the expedition as an example of what Lipnack and Stamps refer to as a “combined distributed and cross-organisational virtual team” emphasises the enormous challenge and the need to explore new models for working and learning together.

The interconnection between facilitation, coaching and mentoring and need for giving and receiving feedback also raises interesting questions. For example:

- How can we use the roles of facilitator, coach and mentor in virtual contexts?
- Are these conventional face-to-face roles appropriate and useful as they stand?
- Or, do they need to be repositioned or redefined to foster and support e-learning?
- What kinds of feedback do learners and groups need and how can it be delivered?
**Key Learning:**

Facilitating, coaching and mentoring processes and community learning are topics that need further research. More questions were raised during the efmd expedition than were resolved. However at first glance conventional face-to-face models do not seem particularly effective when applied in virtual contexts. Sometimes facilitators recorded suggestions or comments about process and the online conversation came to a halt. At other times provocative questions encouraging participation were asked, but there was no response. Some facilitators tried contacting group members by email and telephone calls to re-energise participation. As the project progressed, participation continued to wane and level off to only the most dedicated participants.

Effective ways for facilitating process and learning are critical to the success of e-learning programs. The processes and mechanisms need to be put in place before projects get underway. Having new facilitators engaged in learning online facilitation skills in real-time can be a highly risky strategy. One alternative may be to use low-risk projects to pilot test technology and experiment with facilitation. Designing feedback mechanisms for sharing ideas about what works and what doesn’t also needs attention before large-scale e-learning projects get underway.

Here are a few other practical suggestions that may help involve people in facilitating their own learning and problem solving:

- Group contracts could include shared understandings about learning as well as how members will interact and use technology. A combination of technical support and peer coaching is effective in helping people meet minimum technology skill levels so that a meaningful inclusive discussion can begin.

- Processes for giving and receiving feedback need to be built into group and community processes. Thought needs to be given matching types of feedback and appropriate mediums.

- Teams goals and interim milestones would help teams articulate their expectations about what they want to learn and do. These targets would also enable facilitators, coaches and mentors understand when to step in.

- Creating opportunities for peer coaching and mentoring within and between teams is useful for supporting very targeted learning needs. Encouraging people to apply what they are learning would reinforce the development of new skills and effective habits.
Theme 6: The Importance of Sharing Different Kinds of Knowledge in Different Ways

The efmd e-learning expedition offered participants a wide range of technologies and interpersonal options for learning together. Many groups and individuals experimented with different ways for sharing ideas and knowledge found that some technologies were better suited for communicating in some situations than others. However, the link between types of knowledge being shared and the optimal medium wasn’t made explicit. In retrospect, I believe it may be one of the major learnings. For this reason, I have included italicised subheadings below describing the knowledge being shared followed by relevant comments from participants.

- **Structural knowledge:** “I see groups that have put a lot of effort into relationship building and are starting to struggle with developing the more structural aspects of working together. I see people who are expressing huge frustrations about not being clear about focus and roles and I see groups and individuals trying to put these things in place - with varying degrees of success.”

  “As to the roles suggested (do we see Belbin here?), I could subscribe to a number of them but I feel it's too early. What I am struggling with right now is getting an understanding of how the technicalities work.”

- **Social conversation:** What helped us was having a phone conversation. We scheduled a conference call and decided during the call that we needed a casual place to meet to have a chat. One of the issue that came up in the discussion was how to put more social conversation into the space – the virtual cafe seemed like a good solution. After the conference call a member of our group posted the cafe. It's great!

- **Decision-making:** “I propose that we have to make a new discussion for each decision and create a link from our common workspace. This must be a system for decision making – and only that. Any decisions that are being proposed in other discussions or threads must also be posted under the new discussion – lets call it VOTING. Each vote is made as a thread and we must find a way of voting and rules for decisions.”

- **Meeting discussions:** “My perceptions of chat-lines - it's yet another new way we need to learn to communicate. Different from these postings, quite different from face to face yet it's real time. To be honest, I found it quite difficult and a little frustrating. I know people all over the world are falling in love through this medium, so I am obviously missing something!!

  I suspect that there is a set of protocols???

What I found hard was that it seemed we went down a track without all really being clear about which track or why; and then it felt complex to change direction.
I think to use chat as a tool for meetings, decisions etc, the discussion probably needs to be very well structured - which probably means work done prior on this system (all the conceptual stuff, definitions etc) - maybe we can come up with some conclusions about what purposes "chat" is effective for?"

- **Shared knowledge**: “About our end product. I would like that we look for the creation of some new tool that would be of some interest for all the efmd community. We should avoid the traditional way to conclude such a group process by writing a long report connecting with all the strong ideas we have shared. That will be hard work for all of us, and I wonder about the impact …

My proposal is that we all together try to create something like:
- a game or
- a fairytale or
- an imaginary journey story or
- the first collective distance art work coming from an international team of team builders or
- a poem or
- etc. …

The idea is: having in mind all the knowledge we have shared together, we synthesise it in something completely different where we can focus on our emotions, this is why art is very much welcome.”

- **Personal knowledge**: “Do not try to understand all ideas, all content, all the environment as we usually do in traditional way of learning and working; because of the dimension of the information gathered and shared, this e-learning situation is very much representative of all the mess and all the richness of internet. It means that you cannot dominate the information, because it is infinite. I haven’t had time enough to discover more than 10 to 20% of the messages and documents given to me there in the whole content of the platform (but 100 % of those of the Soft group)

Just give your personal feeling when reading some messages. Express yourself as it comes in your mind; you cannot imagine how it helps the group growing. Your contribution maybe just focusing on one idea, it is yet very important; and of course, if you have time and abilities to broaden and give a synthesis, that's better and if not don't feel guilty. I mean, you can very easily feel guilty if you consider the huge hole of Non Action that contains what you are missing and not contributing to.

My strategy is to focus only on my Scouting group (lack of time to do more); then with time, appreciating the richness of personal behaviours and intellectual assets of a very few number of people is great, and you long to participate to this creation from inside, although feeling quite poor and small. And with time, you encounter warmth of friendly communication. And my conclusion is that you may socialise very deeply through distance group communication, as long as you have a lot to share in a common project.
Working and learning together in geographically dispersed virtual teams involves sharing thoughts and ideas about process and structural issues, personal experiences and collaborative experiences. Teams wrestled with finding new effective ways to set goals, assign roles, make decisions, discuss topics, and share what people learned individually and collectively. They experimented with synchronous (same time) and asynchronous mediums and found some types of interaction and knowledge sharing were more easily accomplished face-to-face, using online chat sessions, sending individual or group emails, making phone calls, participating on teleconferences and posting messages to a shared learning place.

**Sharing “common knowledge”:**
Nancy Dixon has developed a theory that emphasises the importance of matching the type of knowledge to be shared with the method best suited for transferring it from one part of the organisation to another. She argues that people are generally willing to help others and exchanges ideas about issues that are really important to them, however organisational culture or technology can get in the way. Her focus is the dissemination of “common knowledge” defined as “knowledge that employees learn from doing the organisation’s tasks” (Dixon, 2000:11). It’s about how to do things – often referred to as “know how” knowledge – and is always linked to action as opposed to “know what” knowledge which is more conceptual. It is this “common knowledge” that is internally generated and unique to the organisation that is critical to organisational success.

Dixon argues that sharing common knowledge throughout the organisation is key to the development of a competitive advantage. However different strategies need to be used for based on a) different combinations of types of knowledge categorised along a continuum of tacit to explicit knowledge, b) the nature of the task, and c) the identity of the receiver. With these criteria in mind, she suggests using one of the following transfer strategies that integrate various combinations of face-to-face and electronic communication:

- **Serial Transfer**: Explicit and tacit knowledge transferred by the same team as it repeats a task in a new context. e.g. replacing a generator.
- **Near Transfer**: Explicit knowledge for a routine task transferred from one team to another team that will perform the same task in a similar context, but a different location. eg. best practice for reducing the installation time for brakes.
- **Far Transfer**: Tacit knowledge for a non-routine task transferred from one team to other teams that apply it to a similar context in a different location. e.g. an oil exploration team.
- **Strategic Transfer**: Very complex tacit and explicit knowledge transferred from one team to other teams that are separated by time and space. e.g. a corporate merger team.
- **Expert Transfer**: Explicit knowledge about an infrequent task transferred from an expert to a person or group. e.g. a problem with email.
**Connectivity and knowledge sharing:**
The Internet is having a profound impact on how people share learning and knowledge. Bill Gates, the visionary leader behind Microsoft’s success, describes it this way:

“In the digital age, ‘connectivity’ takes on a broader meaning than simply putting two or more people in touch. The Internet creates a new universal space for information sharing, collaboration, and commerce. It provides a new medium that takes the immediacy and spontaneity of technologies such as TV and the phone and combines them with the depth and breadth inherent in paper communications. In addition, the ability to find information and match people with common interests is completely new.” (Gates, 1999: xvi)

**The Challenge:**
At the beginning of the expedition, the e-Learning Café became an informal meeting place where people posted messages about topics like the weather and what they were doing at work or on the weekend. This was a wonderful way to encourage everyone to participate and join the collaborative experience. However, getting beyond this informal exchange to deeper learning proved difficult. Individuals and groups often struggled to develop effective ways to accomplish what they had set out to do.

Learning in virtual space is a significant challenge at any time – especially for novices. It can be even more difficult when team members are geographically dispersed across multiple time zones with different access to and experience with e-learning technologies.

Here are some comments that illustrate the tension between the need for creating structure to work effectively versus the desire for building relationships to support collaborative learning:

- “I keep seeing the same problems in many areas: the inability of groups to arrive at clear purpose, roles, and structures to make it easier for people to contribute. Some people wanted this right from the start, and in some groups this seemed to occur – but it didn’t suit all members. I personally did not want to belong to a group where those issues were decided at the start – I needed to build relationships with other group members, get an understanding of what people’s interests, capabilities, needs were before those sorts of decisions were made.”

- “From my present e-learning experience as well as experience with other learning groups I got the feeling that, if no clear structure and responsibilities are set at the initial gathering, the follow-up is more than doubtful – even more so if participants do not see each other in the corridors and get reminded.”

As well as trying to balance structural and social issues, groups also explored effective ways to build rapport, set expectations, discuss topics, hold meetings, make decisions, and produce a collaborative report about what they were learning. To meet these ends, many groups experimented with available technologies to discover the pros and cons of using synchronous versus asynchronous technologies to work and learn together.
**Key Learning:**

Collaborative e-learning and knowledge sharing can be more complex than first meets the eye. A one-size-fits-all approach does not work. Group members learned to share different kinds of knowledge in different ways because some technologies are more appropriate for some exchanges than others. Insights emerged when the fit between the message and the communication strategy were mismatched. For example, picking up the phone or sending an email could save time and frustration rather than trying to do everything in an asynchronous medium. Other times it was more effective to post ideas and give team members time to reflect and comment in the asynchronous environment than try to push to action using electronic chat or conference call.

- “GREAT to hear your voices. I feel very motivated by the opportunity to get and hear instant feedback on ideas and thoughts. Maybe we should do this more often. Someone on the call mentioned having a problem with asynchronous learning. I totally agree! I have come to the realisation that this kind of communication is hard for me, because I need/prefer instant feedback. Anyway... I think we're getting a second chance here …”

- “Hi all: it was very motivating indeed to talk to you today in the conference call...yes, it was me who mentioned my difficulties with the asynchronous learning mode.. But, don’t give up...I won’t either. We just have to commit ourselves to respond to questions and suggestions farther. Maybe also find out how to do more synchronous meetings, like telephone conferences, chats or even another live meeting we were talking about.”

Individuals and groups need to think about what they want to accomplish and the mediums of knowledge exchange that can best meet their needs. The knowledge exchange processes and technologies adopted will likely emerge as a unique mix to meet the unique needs of members, the team’s learning mandate, the kinds of knowledge they wish to exchange.

Another really important lesson learned from the experience is that technology cannot replace face-to-face interaction. Nor can one type of technology serve all purposes. Although the Internet is a rich medium for learning and sharing knowledge, it needs to be integrated with other forms of interaction to support collaborative endeavours. This expands the concept of blended learning. It needs to go beyond the integration of classroom and online learning to a more dynamic type of blending that can include chat-lines, polling or voting software, decision support systems, electronic brainstorming and other such group tools, e-mail, groupware or shareware, telephone, conference calls, video-conferencing, e-classrooms, etc. etc. etc . . .
It is interesting to consider the accomplishments of the efmd expedition from a knowledge creation and sharing perspective. The breadth and depth of the learning and knowledge exchange that was fostered by this project could never have happened exclusively in a face-to-face context. It would have been expensive and time prohibitive to expect everyone to be physically present for all of the events and group interactions that were offered. The ability to experiment and exchange personal and collaborative knowledge in many different ways was a significant accomplishment. We learned that the Internet is a rich medium for learning. However, building effective processes for capturing and sharing new knowledge across teams (i.e. organisation-wide) is a significant challenge.
Theme 7: The importance of making learning, not learners, visible

In traditional classroom courses and workshops instructors expect learners to be highly visible. Often the final grade includes attendance and participation marks. In a virtual context everything changes because learners are invisible. This makes it difficult to get a sense of the learning activity because learners can read what others have posted without responding or adding other comments. For example, there were about 120 visits to Gareth Morgan’s online lecture but only a dozen people posted comments or questions. That’s a participation ratio of 1:10 and it prompted the following discussion:

• “What do you think – if there are not many questions or comments, what can be concluded? Can we “assume” that the lecture has been useful and that expedition members have learned?”

• “We can become so used to "feedback" from face-to-face life, that we / I can feel bereft without it. Lack of response, however, may not mean lack of learning or satisfaction. It may or it may not.

What does this mean for the manager/organiser of online learning? and for the online learner?”

• “I would like to add a point here on the 'invisibility of e-learners' and feedback. E-learning can be a challenging environment for those used to receiving immediate feedback. …

For the past 10 years I have worked in other cultures, most of my participants are relatively quiet during a training course. During a course, feedback is not necessarily forthcoming. I believe the lack of feedback links to their cultural teaching methods that are based on Confucian principles whereby the teacher is viewed as the expert – to question or comment during class would be considered impolite. This style is completely the opposite the Western Socratic method and particularly in e-learning environment where learning is through discourse, from one another, and the participants are all experts.”

• “… about learners being invisible. I find e-learning environments similar to online groups, such as e-groups or Yahoo groups for professionals. Within these groups there seems to be a fair amount of observers or 'lurkers' – participants reading the postings but rarely commenting.

While I enjoy these learning environments, I too usually take the observer role particularly if I don't understand the nuances or norms of the groups.”

The tendency in classrooms is to make learners visible. In e-training, learners are observed by technology as they proceed through the assigned online work assignment and they need to get good scores on tests to continue learning. However in e-learning contexts this approach is inappropriate.
People need the freedom to explore and follow their own learning paths, participate in forums of their choice, and share new insights on topics of interest to help others learn.

**The challenge:**
In e-learning contexts, the spotlight needs to be on learning rather than individual learners. The key to success rests in encouraging people to share their insights and ideas. The volume of overall learning activity and the quality of contributions that get shared become critical measures of success in an e-learning context. This differs greatly from classroom learning where the major challenge is to get students to attend class e.g. spot quizzes, attendance logs, participation marks etc.. In e-learning contexts priority needs to be given to encouraging learners to contribute ideas and comments so everyone can learn. In the above excerpts the simple idea that more people are online than it first appears is extended to ideas about feedback and cultural diversity. The following excerpts from the same discussion thread illustrate how conversation and learning can emerge:

- “I never really made the direct connection between the role of diversity and participation online. I like the way collaborative learning can "level the playing field" by enabling those who might not otherwise participate get directly involved. I’ve found that some learners who hesitate to speak out in a group are eager to participate in online learning where dialogue occurs in "slow motion" and they have time to really think about what they "say."

- The implications of the "invisibility" factor are intriguing. … Some of the discussions in this expedition about trust seem really important. But I think that the quality of "content" and the "value" of the experience may be equally if not more) important in this medium for getting participation and learning underway.”

- “Working cross culturally, I’ve realised the importance of understanding the variations in learning, communication and problem solving styles. I think sometimes e-learning is deceiving because of the heavy emphasis on English as the language of instruction. By using English, we may think everyone is the same and design or deliver a training program based on our own cultural values without realising the differences in learning/communication styles.

I agree with the comments about the importance of "content" and "value" but I also believe, particularly with group learning, a fair amount of trust must be established before participants are willing to engage. Looking at the cross-cultural elements, for many cultures developing trust and building relationships is essential before business can be transacted.”

- “I wholeheartedly agree that collaborative learning provides an avenue for the more silent participants to get involved, as the asynchronous dialogue provides time to think about their responses.”
Under this scenario, assuming the group understands the cultural nuances and a fair amount of trust is established, I believe 'c-learning' will have a strong hold. The only question I have is, are multilingual parallel discussions available?

The challenge to make learning (not learners) visible involves creating contexts where learners feel safe contributing their ideas. This is a significant undertaking considering differing expectations and cultural norms. Other issues that can influence comfort levels and how people engage e-learning include learning styles and learner motivation.

- “… I do have an email network that I am using for sharing ideas – people with similar interests to learning. I also find a lot of people are really interested in the process (and content). They are working with similar issues but have given nowhere near the amount of thought to many of the issues we have been experiencing – so the "talking" is important to me – but I am also a strong "extrovert" in MBTI terms – I wonder how introverts are processing / reflecting etc.”

- “Here are some reflections of a true introvert, in MBTI terms, on the journey so far. Being introvert does not mean that I do not need to share ideas and views, but I will do that at a much later state, i.e. when my ideas are clear which is not yet the case. Knowing that there are others with whom I could interact is already fine. Most probably the sharing will come once I plan to put something in practice.

For the time being I am literally wandering around and listening to the wealth of ideas and opinions presented in the different discussions. I am trying to create my own map of what matters to me and might come in at certain points to clarify issues.”

- “In reviewing the these postings I’m thinking another chapter we have not explored in creating an energy space for e-learning is to understand 'what motivates' the individual learners. Aside from having a common purpose or objective, I believe the participants in an e-learning group need to develop a common approach to accomplish the purpose. This understanding, with face to face groups, evolves through time working together. Given the fast cycle time with many e-learning groups, the time to develop an approach or understand a working style is not always available. In this sense, I am wondering if any of you have used assessment tools with your groups?”

- “What sort of assessment tools are you referring to? Do you mean to assess motivation? With new groups of business owner's I use a variety of tools to assess their learning needs and style. This helps me to design the learning events to suit the group. Typically a variety of learning styles exists in the group so the learning events have to be varied to keep everyone engaged. So we include practical activities and exercises to suit the activists, while also providing reference material for the reflectors.
In classroom groups we also use tools related to the subject matter to direct the learning/approach to the problem being addressed.”

- “The question I have for our group has not so much to do with the motivation of the individual members of e-groups but the rewards they get for being engaged. How can e-learning in organisations be integrated in peoples everyday work? Does the company have to change? Or, do the members of e-groups have to seek for internal rewards within the group (e.g. realise that sharing knowledge and best practices with other group members reduces the everyday workload)?

**Key Learning:**

For successful e-learning projects, the underlying assumptions and mental models that prevail need to be explored and sometimes challenged to find effective ways to invite and engage people. Creating safe e-learning environments founded on trust and value is a complex undertaking. Learning styles and motivation, cultural norms and language differences, organisational expectations and rewards need to be considered to drive individual and collective learning.

Another important factor is designing programs that are flexible enough for people to learn as they go. Here is an example where one person shares a personal story to help a colleague and in the process gains an even deeper understanding of what has been learned.

- “We are in a strange journey. I read in a message posted here about someone who had been travelling very far (I don't remember where). Let's use this metaphor. How was your journey? Well organised? Perfectly planned? All defined in advance?

Two years ago, I visited Nicaragua with my wife, children, and two friends with family. 12 people for 3 weeks. We booked our tickets for the plane, then nothing. We tended to organise ourselves for the next day but everyday something happened that was deeply breaking the plan. We had to adapt at each moment according to safety situations, changing weather, unexpected local event, and even the eruption of Volcano Cerro Negro which summit we had reached 36 hours before (means we quickly changed our programme to go back and look at this phenomenon). We joked a lot with it; the words remaining in all minds as characteristic of our trip were "Changement de Programme!". Conclusion: we had the best holidays in our life, we discovered lots of that country, we had an incredibly strong group atmosphere for all the time (no serious conflicts between the 6 children and 6 adults, I am suddenly thinking that when we are making paces in an uncertain world, group solidarity may be easier to develop). So end of the metaphor: Our Group is a Journey to Nicaragua. And, end of the end of the metaphor: observe that there is a return ticket at the end of the journey, which means the adventure stops and we are back home with transformed minds and new friends.
As I started this message, I had not at all in mind the metaphor; thank you for the opportunity you gave me to discover it !!!!”

Making learning rather than learners visible means recognising there will always be “lurkers” and acknowledging that everyone doesn’t need to “speak out” on every issue. It means creating vibrant learning communities where learning emerges as people share their insights and reflect on what they and others are learning in the process. Assessing learning may be as simple as scanning the titles and subtitles of discussion threads. This can quickly give you an appreciation of the topics of interest and the stage of learning (e.g. early stages where people are talking about the weather versus later stages where issues and experiences are being discussed). Use this scanning process to guide the overall e-learning project. If learning is not visible, it’s time to dig deeper to get to the source of the problems (e.g. learning styles, motivation, cultural differences, rewards, etc.) and find ways to overcome them.
Theme 8: The Importance of Metaphor for Making Meaning and Surfacing Assumptions

Metaphor is more than a simple decorative linguistic device for embellishing writing and speaking. It is fundamental for helping us make sense of the world around us and the contexts in which we work, learn, and play. Our language is so full of metaphors and images that they soon become taken for granted and are easily dismissed. However by looking closely at the metaphors and images in what is being communicated, we can sometimes gain a deeper understanding of the meaning and surface hidden assumptions that can lead to interesting new insights.

Gareth Morgan pioneered the use of metaphor for understanding organisations as machines, organisms, psychic prisons, brains, cultures, political systems etc. in *Images of Organisation*. He writes:

> “Each metaphor opens a horizon of understanding and enacts a particular view of organisational reality. … I view metaphor as an active constitutive force that leads us to enact the world in a particular manner. My view of metaphor as a way of being and acting in the world gives it an active quality. Metaphor makes meaning.” (1997:427)

Thinking about metaphor as a way of making meaning and applying the idea to the efmd e-learning expedition offers an interesting opportunity for interpreting the underlying messages and images used throughout the project. For example, people were invited to join the efmd expedition to experience e-learning first hand. This metaphor was reinforced with images of campsites and use of the term Scouting Parties to describe self-organising groups of e-learners. The campus metaphor was also prevalent on the site captured in terms like lecture hall, project team building, leadership groups centre, e-learning café which communicated a different underlying message. Whereas the expedition metaphor suggests a “learn as you go” approach that is risky and uncertain since learners are venturing into unknown territory, the campus metaphor for learning suggests a far more structured instructor-led approach.

Another interesting perspective is to look for the metaphors that e-learners are using to gain a rich interpretation of their experiences. The excerpts I have used in the previous sections of this report include metaphors like virtual swimming pool, water wings, new culture, learning to dance when no one knows the steps, lost in a jungle, mentoring in ancient Greece, Socratic questioning, Confucian principles, invisibility factor, lurkers, journey, adventure stops, return ticket and others. Each describes different aspects of what was being experienced as the efmd project progressed.

The point: The metaphors we choose to use can shape expectations consciously and unconsciously. Using competing metaphors like campus-learning versus expedition-learning can create a tension in understanding.
Some people will be more engaged by one metaphor and ignore the other, and vice versa. This can set up friction that generates creative breakthroughs as the underlying assumptions in one get played off against another. Other times the tension can create confusion that blocks learning.

The key is to think about what you want to achieve and what metaphor or metaphors can best serve your purpose. Choose metaphors that support your overall goals to help people make sense of the experience. For example, the difference in a terms like building versus tent, project centre versus learning lab, café versus oasis, lecture hall versus dialogue or learning circle can have a subtle yet remarkable influence on expectations and outcomes. Use metaphors to communicate underlying assumptions in a way that can guide people’s expectations and help them make sense of what’s to come.

CONCLUSION:

“The biggest growth in the Internet, and the area that will prove to be one of the biggest agents of change, will be e-learning.”

John Chambers, the CEO of Cisco Systems, made this bold prediction in his keynote speech at the fall 1999 Comdex Trade Show in Las Vegas. Three years later we’re still waiting. Everyone knows the e-learning revolution will happen simply because it has to. There’s a very strong demand. Organisations desperately need the power of e-learning systems to position for success in the knowledge economy.

The promise of e-learning from an organisational perspective has been to:
- Reduce the cost of training and education
- Increase accessibility to content and courses
- Improve the quality of the learning experience

Cost reduction and accessibility are realities. However, most would agree that the quality of the “first generation” of e-learning experience, more often than not, is unsatisfactory. This is largely because, to date, the main focus has been on developing e-learning technology. For example, billions of dollars have been spent on Learning Management Systems (LMS) that manage learners and learning rather than systems that generate learning that can directly impact performance. This has locked many projects into using systems with very limited learning principles where a “first generation” instructor-led learning philosophy prevails. Although this approach has served us well in the past, it is doomed for failure in today’s turbulent environment where performance learning – learning that gets directly applied to the job – is needed to survive and thrive.
More attention and resources need to be focused on creating content and learning supports that exploit the attributes of the just-in-time, just-enough, and just-for-me aspects of a web-based medium. Much of the content available online now is directly imported from print e.g. e-books, webzines, online newspapers. Learners scroll through long screens of material in the same way they flip through pages of text. This offers some benefits over paper – like easy access to a lot of information and the ability to manipulate electronic text and do calculations. However, it does not tap into the unique “drill down” or hyperlink capacities of the web-based medium that can significantly improve the quality of the e-learning experience and drive performance-based learning into practice.

The efmd e-learning expedition offered an opportunity for people to experience the e-learning phenomenon from the inside. However learning was not directly linked to performance which fostered abstract learning (the campus metaphor) for many learners rather than the performance-based learning (the expedition metaphor) they needed to get their own e-learning projects underway.

This report is written to offer practical lessons from a learner perspective. Keeping these ideas in mind in the implementation of e-learning projects is a good start. However, much remains unlearned because the e-learning territory for the most part is uncharted. It is this unfulfilled promise of e-learning to transform the way individuals and organisations learn and act that has captured my interest.

My research explores a new approach to e-learning pedagogy where the role and use of provocative interventions, or provocations, are embedded in a way that integrates content and technology design to promote learning and stimulate the creation of new knowledge. This learner-driven philosophy is designed to engage and involve people in their own learning in a way that enables them to control and take ownership of the learning process itself, the knowledge they create and apply, and how they choose to share it with others.

By my definition, provocations (or provocative interventions) contain powerful messages or “hooks” that excites and grab attention, disrupt old mindsets and spur new thinking e.g. provocative questions or ideas, counterintuitive concepts, paradoxes and dilemmas for which there isn’t a single right answer, powerful images or metaphors. My interest is in embedding provocations in content and technology to provoke curiosity and new understandings, capture the imagination, evoke reactions or prompt new questions, and invite learning.

A pedagogy that embraces provocation (i.e. my provocation-based pedagogy) pushes learning beyond passive absorption of abstract ideas and concepts to a more action-based practical style of learning. Provocations are designed and integrated in a system that encourages performance learning by helping people push beyond the boundaries of what they “know” to create new insights and knowledge that can be applied directly to current situations and easily shared with others.
In a turbulent world where curiosity needs to be revived and celebrated, a provocation-based pedagogy pushes people to explore and experiment. In a global marketplace where there is never enough time, this approach can also enable rapid learning that is targeted at specific performance needs. The cornerstone of my research is the search for innovative ways to embed provocations as stimulants for self-directed learning and the creation of new knowledge and thus integrate a performance learning philosophy in every screen.

My work on the NewMindsets* project is based on the belief that new pedagogical approaches can kick-start the e-learning revolution and maximise the potential of the open-ended web-based medium.

* NewMindsets is a second generation e-learning system designed to support performance learning, provoke learner-driven experiences and generate new context-specific knowledge. For more information, visit www.NewMindsets.com or contact me at jadams@schulich.Yorku.ca
SECTION THREE

ANNEX ONE: LEARNING THE E-WAY: "IT WAS THE TELEPHONE CONFERENCE AND THE CAFÉS THAT WERE THE REAL KICKS!"

By Bente Thomassen

e-learning offers itself as a powerful approach for increasing the rate of learning across an organisation, and many learning professionals devote time and energy to increase their knowledge about the subject.
The author was one of the 65 European e-learners, from 18 countries, participating in the efmd e-learning expedition that took place in January to May this year. The goal was "to learn about e-learning by doing e-learning", and the ambitious agenda was to perform second generation e-learning on the subject of e-learning.
It certainly was an expedition... challenging... frustrating... and also highly rewarding, as always when one covers new ground. This article wants to share experiences from the expedition on e-learning, focusing on the topic of learning styles.
In the last issue of the forum, Tim Phillips has given a fine in-depth report on the exploratory expedition covering the 4 crucial dimensions in e-learning:

- Content
- Relationships
- Business
- Technology

And Bente Thomassen encourages us to have a look at it, as valuable experience is compiled in all 4 areas.
This article, however, takes a closer look at learning styles and the interactions that could be offered in the virtual learning environment.

Variety of learning vehicles

Learners are different in fundamental ways. They have different motives, they come with different backgrounds, and different mental models. And they understand, think, perceive, conceptualise, comprehend differently.
Many years back David Kolb taught us that learning, in order to be efficient, should encompass a variety of vehicles in order to meet these diversities in learning.
Today, all programme designers know (and perhaps they've experienced it the hard way) that efficient learning is based on variation.
Successful learning offers experience and theory, and successful learning integrates hands-on work and study in a balanced process. A sound learning environment supports action-reflection learning, in a carefully balanced mix of different learning vehicles: plenary sessions, group discussions, one-on-one interaction, lectures, role plays, outdoor activities... to mention just a few.

...so what's new about e-learning?
We have had computer based training around for a while and I am sure you yourself hold some of the wonderful CD-ROMs with management skills training in your compilation of learning material (when was the last time you tried one, by the way?) Is the web just another vehicle? Is it just another channel, adding to the variety of learning vehicles we already have? Does it bring forward qualitatively new learning?

1\textsuperscript{st} generation – instructor driven re-action
The 1\textsuperscript{st} generation of e-learning offers what we know as instructor driven learning. 1\textsuperscript{st} generation e-learning uses the web as a new media of distributing knowledge, "training on the web" so to speak. It can be described as a one-to-one conversion of learning material and facts, from paper to the web. Content has been put together and frozen and is comparable to content in a binder (text, graphics). It may be combined with interactive checklists, and interactive multiple-choice tests, video-clips etc. Most learning professionals would consider that being 'e-training', very well suited for a specific topic, with a well-defined content, and with a specific goal. Plenty of experience has been gathered in that domain, and the effect is quite well documented.

2\textsuperscript{nd} generation – learner driven interaction
2\textsuperscript{nd} generation e-learning is supposed to offer what is missing in the 1\textsuperscript{st} generation: interaction and many-to-many conversation. We know that learners in real classrooms appreciate the conversation and the insight stemming from peer-to-peer interaction. Basically, most people like to talk to others, share experienced and exchange good ideas. Second generation e-learning is about using the web, and the technological e-solutions on top of it, as a platform for interaction, and second generation e-learning is learner driven. Learners define their own agenda together with their team (collaborative learning), using the web as a virtual classroom. The teams of learners are dependent on each other, and often will not have any pre-defined content to work on. It is a network, with no given path, and every learner will go his or her way.

Interaction and conversation
The new thing about the web, and the learning environments that are offered on top of the web is conversation. The web enables a many-to-many conversation between those involved. The question is how? How should conversations take place, how are they supported, and what should the technology look like?
Howard Hills, e-learning consultant and the author of the book "Team Based Learning" is doing very interesting work on the team and learning dynamics in the virtual classroom. Harold points out that important human needs are not directly met in the virtual classroom: company, full sensory experience, and relaxation, play. All being factors that motivate and energise the learner. Very little experience has been gathered in this domain so let me share with you the findings from the learning expedition, that is the findings that the NRG-team reached.

Remote learning: what motivates, engages, rewards, and energises the e-learner?
On the face-to-face kick-off meeting, the NRG-team had defined its goal and learning agenda as: what motivates, engages, rewards, and energises the e-learner?
So, with this clear goal in mind we set off. Collaborative learning was supposed to be done over the web over a period of two months. In practice that meant logging onto the site, going to the café, posting one's remarks supported by the possibility to read and listen to on-line presentations, which were announced for certain dates.

So, what happened? Did we log on to the site every other day? Did we listen to the online presentations and lectures (which were the best in their field and the subjects being extremely relevant)? Did we comment? Did we use the Cybrary?
Well, many did. They indeed went to the site, invested the time, disciplined themselves and mustered the concentration needed. But even more did not. Daily operations tended to take over...

And our own NRG -team found itself in a frustrating position: the face-to-face meeting had been a wonderful kick-off, the group seemed energised and highly motivated as many needed input for concrete programme design in their own companies. But, the first deliverable had been posted on the site for comments, several went to have a look, some commented, and.... nothing really moved forward. Group discussions in an asynchronous environment did not seem to fit very well. And apparently the site did not support what the group needed, in spite of its many rich facilities, graphics, visuals and careful layout. What was missing?

We decided to talk. To talk synchronous and set up a telephone conference (and yes, it's ok to smile at the paradox of setting up a phone conversation in order to support web-based e-learning).

Here is what our conversation brought forward.

"... dropping a post and waiting for people to reply...it is the immediacy of the feedback that matters"

"The energy started when we had our in-person meeting - there were loads of energy! Then we all came back to our respective places.... The technology didn’t help us in the early stages, and then some found it difficult to use the impersonal kind of setting in, dropping a post and wanting for people to reply."

"I had lots of energy when I started working on the site because I liked the site. It gave me something to explore - that fits my personal learning style.”

"I saw energy when I got immediate feedback to a question or to a statement. Not when I was posting something and people didn’t respond. The feedback link was missing."

"I am just finding this plaza difficult to engage in. I need tangibles, I need visuals, I need face to face and I really can’t do very well without it.”

"Lack of feedback is possibly the worst thing for energy”

"We obviously want to meet and we want to have synchronous discussions and interactions”
Perhaps it strikes you while reading as it also struck us during the conversation in the team: we seemed to be a group of individuals with an enormous desire to talk: just wanting to express one’s thinking out loud and getting some immediate feedback to it. The team members needed to talk, to share, in order to develop ideas and bring forward results. This learning style brought us to the Myers Briggs Type Indicator and the way learning styles can be seen through the MBTI lens:

<table>
<thead>
<tr>
<th></th>
<th>Extroverts</th>
<th>Introverts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoy learning in groups</td>
<td>Prefer to learn alone at their own time frame</td>
<td></td>
</tr>
<tr>
<td>Like having people around</td>
<td>Like being on their own</td>
<td></td>
</tr>
<tr>
<td>Like variety and actions</td>
<td>Like working without interruptions</td>
<td></td>
</tr>
<tr>
<td>Develop ideas by discussion</td>
<td>Develop ideas by reflection</td>
<td></td>
</tr>
<tr>
<td>Develop their ideas while talking about them</td>
<td>Would rather figure things out before they talk about them</td>
<td></td>
</tr>
<tr>
<td>Do-think-do</td>
<td>Think-do-think</td>
<td></td>
</tr>
</tbody>
</table>

Which lead us to suggest that a fruitful e-learning environment should offer a variety of e-learning means in order to support different learning styles:

<table>
<thead>
<tr>
<th>Extrovert e-learners</th>
<th>Introvert e-learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>are likely to enjoy synchronous learning, perhaps with scheduled on-line meetings at certain intervals</td>
<td>are likely to enjoy asynchronous work in the e-environment, setting their own speed</td>
</tr>
<tr>
<td>are likely to appreciate chat rooms, on-line cafés, video conferencing, voice support</td>
<td>are likely to appreciate on-line presentations, on-line lectures and threads</td>
</tr>
</tbody>
</table>

Many teams have experienced that sharing their MBTI type and understanding the different MBTI preferences improves teamwork. For virtual teams working via the web this seems worth a try, and it would certainly be useful for a learning community to spend some time sharing preferred learning style.

**Learning styles. How do learners differ?**

Can we carry these suggestions further? Alice and Lisa Fairhust, the authors of the book “Effective Teaching, Effective Learning” have compiled a table, showing students’ preferences by style. Their work combines the MBTI insight and Keirsey’s temperaments and offers a learning style grid:
Keirsey temperaments and learning styles

<table>
<thead>
<tr>
<th>Core Needs and Wants</th>
<th>Guardian (SJ)</th>
<th>Artisan (SP)</th>
<th>Idealist (NF)</th>
<th>Rational (NT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership and Belonging</td>
<td>Membership and Belonging</td>
<td>Freedom and Action</td>
<td>Identity and Self-Actualisation</td>
<td>Knowledge and Competence</td>
</tr>
<tr>
<td>Responsibility and duty</td>
<td>Responsibility and duty</td>
<td>Excitation and Variation</td>
<td>Meaning and Significance</td>
<td>Power and Mastery</td>
</tr>
</tbody>
</table>

| Instructional mode | Lectures, procedures and past facts; how to's (the "right" way) | Performance, personal manipulation of materials to learn subject matter | Lectures, about real people, fantasy, unmet people needs | Lectures, abstract and intellectual, future trends |

| Learning mode | Workbook completion, paper and-pencil drills | Experimentation with tools | Creative writing with a people focus | Intensive study of subjects that fascinate |

| Learns best through | Teacher-led question and answer | Demonstration with action, hands-on work | Small group interactions, one-on-one interaction | Self-determined study, debates |

| Favoured activity | Review, repetition, practice for learning requirements | Hands-on manipulative, personal experimentation | Group discussion for projects, opportunities for self-expression | Individual projects with emphasis on research and reports |

A first cut suggestion for best fit in an e-learning environment could be the following.

| e-learning "best fit" | Traditional 1st generation e-training, drill down structure, check lists, self tests | Simulation, chat | Group ware, chat, 2nd generation e-learning | State-of-the-art tool and content, top presenters, on-line debates |

Please note that these suggestions are based on one case study only, namely the efmd learning expedition. As second generation e-learning emerges it will be interesting to see forthcoming findings and share empirical data/cases about using type and temperament in e-learning.
What changes... and what remains the same?
Someone once said that in times of massive technological transformation you tend to focus on the things that change and tend to overlook the things that do not change. And fads certainly come and go. For someone like me who has worked in the computer industry since 1985 e-learning could be one of them. Putting an "e" in front of a well known entity does not turn it into a brand new thing. The marketing cult book "The Cluetrain Manifesto" has provided us with the valuable insight that the web is a new medium, a new place to shop, or a new place to make a fast million. The web is, literally, a global set of conversation – people talking together in their own voice about what they care about. And therefore the web is – at the same time - both an extension of business as usual, and a back-to-basics tool:
The same goes for learning; learning will definitely change with the "e", but e-learning will definitely not be The Silver Bullet.

E-learning offers a new place to learn and a new way to learn. We still need to figure out how this virtual place can be exciting, fun, useful, and worth visiting, and we still need to figure out what issues in learning change... and what issues remain the same. Learning styles might be one of the ways to find out.
ANNEX TWO: AUTHORS BIOGRAPHY

Timothy Phillips

Timothy Phillips was Director, Corporate Services, efmd until 31 July 2001

Mr. Phillips was with BP from 1968 to 1994, in a series of HR and HRD professional and leadership roles, culminating in leading the operation and overhaul of the integrated corporate succession and development planning processes from 1991 to 1994. From 1995 to 1998 he worked in management development roles in Rolls Royce and in Anglian Water. From 1998 to 2000 he worked as client facing, senior management development consultant with PriceWaterhouseCoopers. For the last year, he has led and conducted review, overhaul and operations of efmd’s service offering to corporate and public sector members.

Mr. Phillips holds a BSc from Newcastle University and a MSc from London University.

Jean Adams

Mrs. Adams joined the efmd expedition as a Doctoral Candidate and researcher working with Gareth Morgan, Distinguished Research Professor at the Schulich School of Business at York University in Canada. She has helped to develop the NewMindsets e-learning system and was piloting e-learning projects in the academic, corporate and public service sectors.

In her own terms, “the experience gained in the efmd e-learning expedition was pivotal”. It gave her an opportunity to join a group of highly-motivated experiential learners and provided a deeper understanding of a fascinating new way of learning, creating new knowledge, and sharing knowledge across diverse and geographically dispersed learning teams within a loosely coupled efmd “learning organisation.”
The difficulties and challenges they faced as explorers in the new medium were very exciting from a research perspective. This experience fed a deeply rooted passion for both learning and technology that lies at the heart of my personal experience and dissertation research.

Prior to joining the doctoral program, Jean had well over two decades of work experience which included teaching children and adult learners in classroom contexts, as well as participating in the development of online training content and performance support systems in a corporate environment. It is her first experience in conventional training and education, and decades as a manager in a technology driven knowledge-based industry that bring a deep understanding and personal competence to the study of learning and performance support.

Bente Thomassen

Mrs. Thomassen is Customer Relations Director with Niveau, a Scandinavian training and consulting Group, based in Denmark. After graduation in Philosophy and Computer Science, she worked as a knowledge engineer and project manager in the software industry for half a decade before she focused on competence development. For the last 10 years Mrs. Thomassen has been working with project oriented organisations in the TelCo and IT industry focusing on leadership development and team development, designing and delivering programmes to a wide range of knowledge intensive companies.
ANNEX THREE: e-LEARNING WEBSITE

Welcome page, e-Learning website
e-Learning Webpage
e-Learning Website

---

efdm e-Learning Report
Experience e-Learning: An Online Learning Expedition

- 64 -
ANNEX FOUR: REFERENCES


Baird, L., P. Holland, and S. Deacon. “Learning from action: Imbedding more learning into the performance fast enough to make a difference.” Organizational Dynamics, Vol. 27 (4), Spring 1999: 19 - 32


Cyrs, T. Teaching and Learning at a Distance: What it takes to effectively design, deliver, and evaluate programs. San Francisco: Jossey-Bass, 1997


_______, Expanding our now: The story of open space technology. San Francisco: Berrett-Koehler, 1997


Revans, R. Action Learning, Bromley, UK: Chartwell Bratt, 1982


Stacey, R., D. Griffin, and P. Patricia Shaw. *Complexity and Management: Fad or radical challenge to systems thinking?* New York: Routledge, 2000


______.*“Intellectual Capital: Ten Years Later, How Far We’ve Come.”* *Fortune*, May 28, 2001


