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## Reports

# e-Learning: Digital Education
March 2001

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*e-Learning: Digital Education*

# Summary

e-Learning includes computer-based learning, Web-based learning, virtual classrooms and digital collaboration. It provides a useful tool for both individual and professional study. The benefits of e-Learning are greater than just time and cost savings. Users can customize and personalize their learning experience, increasing interest, learning and retention. e-Learning is still a nascent area, applications are still being developed to fully utilize computing power; however, the choices currently available are exciting and full of promise.

*Report Objective*    This report discusses the landscape of e-Learning. The different types of programs covered are: Free Courses, How-to's, Online Learning Alternatives, Universities Online, Degree and Certificate programs. Five ways to select a program are outlined, and Benefits and Limitations are also discussed.

*Product Analysis*    The Product Analysis contains:

- The main clients, partners and financial information.
- A Description of the product's features.
- The functions it provides.

*Target Audience*    People, professionals and/or companies interested in three areas of learning: Academic Learning, Professional Development, and Lifelong Learning.

*Analyzed Products*    The analyzed products include: Click2Learn, Learn2.com, SmartPlanet, eMagister, Hungry Minds, Fathom, Pensare and Saba.

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# e-Learning Primer

*Tell me and I'll forget.  Show me, and I may not remember.  Involve me, and I'll understand.*

- Native American saying

The term e-Learning covers a wide set of applications and processes, including computer-based learning, Web-based learning, virtual classrooms and digital collaboration. It should not be confused with online learning, which constitutes just one part of technology-based learning and describes learning via Internet, intranet and extranet.[1]

e-Learning is being positioned as the next killer app.  From boardrooms to classrooms the possibilities presented by the combination of technology and education are astounding. e-Learning promises not only to remove barriers such as distance, but also to allow a fully customizable learning experience in order to maximize learning and retention.

In the New Economy, the raw material that fuels growth is knowledge. Learning is not something that was done in grade school or at the university. *Knowledge workers* must continually update their skills and must do so in an adequate and fitting manner.  e-Learning provides the conduit for knowledge acquisition in a complementary and familiar environment for the *knowledge worker*.

The education market in the world totals two trillion dollars[2] (that is a 2 with twelve zeros). Within this figure we have school costs, which are growing at 15% annually, educational software, a $7 billion dollar [€7.53 billion] market,

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[1] Learnframe. Facts, Figures and Forces Behind e-Learning- August 2000
[2] 1997 Industry Figure

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and corporate training, which is expected to reach $62.5 billion [€67.3 billion] by the year 2003.

Major software and Internet companies are getting into the game as well. Cisco Systems, Microsoft, AT&T and IBM are all developing e-learning programs. These giants will most likely leverage their clout with collaboration software and hardware, search technologies, networks, bandwidth enhancement and an abundance of content.[3]

# EDUCATION AND TRAINING MARKET IN 2000

Continuing Education

$12 billion

Corporate Training

$66 billion

Childcare

$40 billion

Postsecondary Education

$268 billion

K-12 Education

$386 billion
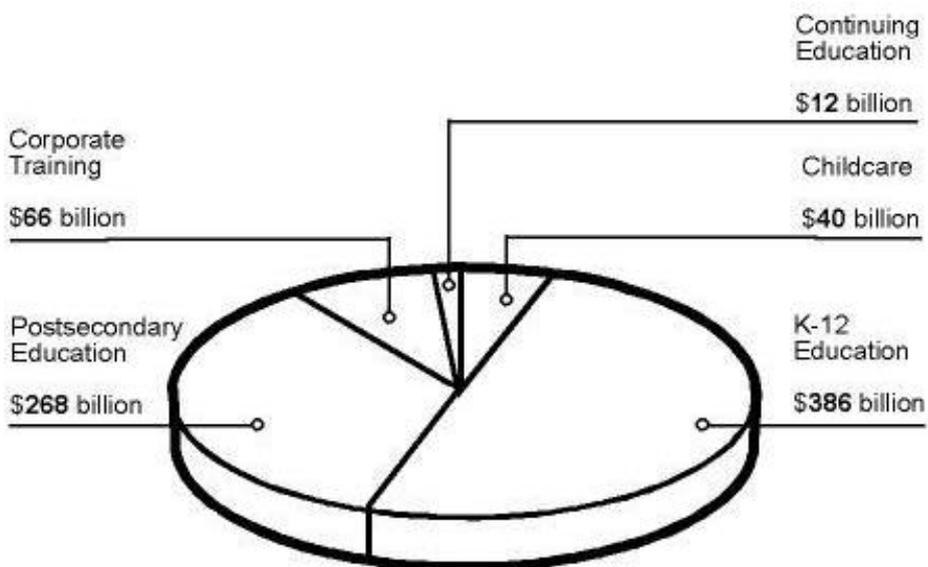
Source: WR Hambrecht +Co

There are new players entering the market as well. These include companies focused specifically on providing e-Learning programs. Many of these

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[3] Learnframe. Facts, Figures and Forces Behind e-Learning- August 2000

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*© Zero Factory SL, 2001.*

companies have already gone public in order to further fuel their growth - converting them into a powerful force in this unfolding story.

Also, Universities are launching e-learning programs. Most of your local and regional universities are introducing e-learning programs or have already introduced them. This is an effort to reach new students - taking advantage of an established brand and reputation - as well as offer flexibility to current students.

All this growth potentially benefits the student. However, before jumping into e-learning, students need to have quite clear what they expect to get out of it. Below we outline the types of programs available and what to look for in a program in order to help make the best choice possible when selecting a program. Whether learning for personal growth or as a professional, there is a program that fits any student's needs.

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# Types of Programs

Programs can be organized into five general groups.  These groups provide services for individuals and corporations for personal or professional education. Programs range widely in cost structure.  A course for an individual or personal interest can cost a few dollars, whereas a corporate intranet integrated learning solution can cost hundreds of thousands of dollars.

Due to this high cost of maintaining an internal learning solution, most companies are adopting an ASP (*Application Service Provider*) model.   This provides small and medium sized companies, as well as individuals, access to fully customizable e-Learning programs.

## Free Courses

Most companies offer free courses.  They serve as an introduction to the type of instruction and learning materials that are offered in their pay services.

There are not many participants offering top quality educational material completely free. One company, nMinds, is offering a great learning tool for enterprising individuals (http://www.nminds.com).  nMinds has gathered many of the thought leaders in business and has assembled a series of lessons that keep the user (or student) up-to-date on a broad range of management issues.

## How-to's

How–to courses teach day-to-day tasks that are helpful to know and do not require excessive effort to learn.  These types of courses include 'How to Adjust the Volume on Your Computer', 'How to Choose Wine' and 'What are Some Tasty Ways to Cook Zucchini'. How-to's are perfect for self-improvement and for individuals who want to get the basics of a given topic and quickly apply them to their needs.

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This is also called "just-in-time" learning when applied to professional learning. The courses do not provide depth in a subject matter, but rather the opportunity to quickly learn and apply a newly obtained skill set.  This helps to reinforce the learning as well as immediately increase productivity in the workplace.

Fast Company offers a type of just-in-time learning with its FC LEARNING section (http://www.fastcompany.com). FC LEARNING is designed to assist corporate trainers or educators to prepare their classes or seminars, but this service is readily available for anyone.   By combining Fast Company articles with a Discussion Guide, they provide a road map for understanding the article and the concept behind it.


## Universities On-line

Many universities offer one set of courses over the Net and a different set of courses on campus.  Some distance courses can be adapted versions of off-line material.   If the material has been re-worked for the Internet, the student stands to gain.  However, in some cases the material has not been re-thought for an interactive, self-paced environment. These courses prove to be disappointing for the student as well as frustrating.  Use care when electing one of these courses.

One university that provides quality online courses is the *Universitat Oberta de Catalunya* (UOC) [Catalan Open University].   The UOC (http://www.uoc.es) has established an excellent virtual university, providing classes in Spanish and Catalan.  They are also in talks with universities in the United Kingdom and the USA in order to provide courses in English as well as provide courses in Spanish for any prospective partners.

## On-line Learning Alternatives

Universities and colleges are not the only source for e-Learning: Multiple companies and organizations offer courses. Companies such as Hungry Minds offer top quality learning materials. These learning alternatives include specific management topics, such as Interactive Marketing, as well as more traditional tracks can be followed leading to a Master's degree or a specialist degree. These companies offer an alternative to traditional universities, and generally consist of top-quality materials obtained through agreements with well-known publishing houses.

One of the leaders in this area is Ninth House (http://www.ninthhouse.com). Ninth House is designed specifically for businesses. One of the requirements is a minimum connection speed of a T1 (1.544 Mbps). This speed alone is enough to inhibit an individual user (which isolates as well much of western Europe). One learning tool, the eSeries, offers an interactive television show that lets users (or students) practice what they have learned with each decision they make affecting the outcome of the plot.

## Degree and Certificate Programs

A variety of certification programs are available through most learning portals or specialized providers. These programs include Microsoft, Cisco, and Novell Certification training; networking; COBOL and Java programming; databases; Web development and e-commerce implementation.

Netg (http://www.netg.com) is one of the market leaders in this area. They specialize in technology-based IT training, but offer a selection of general management and personal development courses as well. The courses are designed to be highly interactive- using real-life simulations, and streaming audio and video.

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# Five Ways to Choose a Program

What is it that distinguishes one program from another? There are five criteria that can help differentiate between products[4].  For a successful program, all five elements should be present.  If one is missing, careful consideration of the program should be made before choosing it.

## 1. Well-known Content

With so many companies and institutions competing for market share, increasingly the best choice is a familiar name. Many programs offer well-known individuals. For example, Ninth House provides commentaries from Tom Peters. Click2Learn offers contents from well-known sources such as Microsoft, MacMillan and IBM. Additionally, considering how long the company has been around, and how long they will be around is important.  For public companies, this information is much easier to obtain and the fact that they are public demonstrates their staying power.

## 2. Interactivity and Engagement

An interactive experience is an engaging experience.  Including features such as multimedia, simulations and role playing, video-based teaching and interactive games, is a sure sign that the learner will be more likely to maintain high interest in the lessons, and consequently improve learning.

## 3. Updates and Reinforcement

Updates provide further insight into the subject. Newsletters and recent articles breathe life into the subject and keep the material current.  In addition to enriching the information in the syllabus, it serves as assurance that the

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[4] Adapted from WR Hambrecht + Co, Corporate Learning: Exploring a New Frontier

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individuals preparing the course are at the forefront in this topic. Nothing is more discouraging than paying for outdated content.  This feature helps ensure that you are getting the most for your money.

## 4. Communities

An environment where ideas, resources, advice and a helping hand can be shared, favor further involvement in the project.  Communities can be used as an integral part of the course work - providing a teamwork environment as well. Many companies and universities have incorporated communities into their programs and courses.  If it is missing, take a careful look at the subject matter, and then consider if it will be missed.

## 5. Centralized Administration

While this characteristic is not critical for the individual user, it is highly recommended for corporate entities.  Centralized tracking can make the difference when evaluating an individual or group's progress.  This includes assessment metrics to help pinpoint employees needs and goals.  Centralized Administration also permits course usage to be determined. Which employees are using the system, how often they use it and what topics are being consulted all can be followed centrally in order to determine the overall success of the program.

# Benefits and Limitations

There are multiple benefits to e-Learning. The most frequently cited are convenience and cost savings. The following points provide an outline of the pros and cons of e-Learning.

## The Pros

**It is always on**. 24 hours a day, 7 days a week. Because the learning is digital and on demand, students can access the information at any time or any day- always at their convenience. This schedule flexibility is one of the strongest points in its favor.

**No Need for Travel**. For time pressed executives, cutting out travel time can create the difference between taking a course and not taking it. If a class lasts for two hours and there is a one-hour commute to and from the course that is a 4-hour time commitment. By cutting out travel, the time commitment is cut in half- and that makes the difference.

**Selectivity**. You can select to learn what you don't know. You can skip or easily pass topics you are familiar with. Instead of learning being a passive experience where you wait for the professor to get to the part that you need, learning becomes active- you choose what to look at. This is analogous to the difference between watching a television and reading a book. On the TV you are passive and have to wait. With a book, you can skip to the chapter that interests you and scan the page for the information you are looking for.

## The Cons

However strong the arguments are in favor of e-Learning, it is unlikely that e-Learning will displace c-Learning (or classroom learning) due to its disadvantages. Under certain circumstances e-Learning is clearly superior. Under different circumstances, it does not fulfill the student's needs.

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DigitalThink's Pete Goettner, chairman and CEO, commented in an interview that "A lot of the sales in e-learning today are happening not at the end-user level, but at the corporate level. It's driven by business reasons, not because the end users necessarily love it." With that in mind here are a few additional points to consider.

**Free Time Means Your Time.** One of the arguments in favor of e-Learning is that it can be done in the users "Free Time". This means your time. If the studying is personal in nature, this is no problem. However, if it is work related, many companies do not recognize studying as a valid substitute for work. Additionally, co-workers perceive that you are not doing anything. This can contribute to misunderstandings in the office.

**No Contact with A Professor**. This is probably the strongest argument against e-Learning. The lack of personal contact with a knowledgeable individual cuts out unrehearsed, serendipitous learning while discussing a problem after class.

**Bandwidth Restrictions.** Current bandwidth restrictions severely limit the multimedia content that can be distributed across the Net. Companies such as Ninth House have specifically designed their programs for a broadband connection. These programs are rich, interactive mediums. Unfortunately, broadband is not an option for many would-be students.

**It's on a Computer.** In order to study using an e-Learning program, studying has to be done at a computer screen. This seriously limits study time. Some efforts are being made in order to ease this problem.

RCA's new e-Books (REB-1100 and REB1200) offer high-resolution digital document portability[5]. The e-Book is a dedicated reader. This means that it can only be used for books or for magazines (such as *Time*, *Newsweek* or *The New York Times*). e-Books allow users to highlight text, take notes and search for text. While this specificity makes e-Books a viable substitute for books (or

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[5] e-Book Readers: Easier on the Eyes, *Business Week*, January 29, 2001

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novels), it's somewhat limiting in the context of class notes or Word documents.

In order to overcome some of these limitations, researchers at Xerox's Palo Alto laboratory have prototyped an active reading machine, Xlibris (http://www.fxpal.xerox.com/xlibris/).   Xlibris provides students the possibility of taking digital materials wherever they go.  In addition to being able  to view digital documents, users can write directly on the screen in order to take notes.  Other usability issues include highlighting the important words in a text and saving links related to the material.  Unlike the e-Book, a wider variety of documents can be used- increasing flexibility and utility.  However, e-Books are currently available on retail shelves; Xlibris is still in development.

# Product Analysis

The eight products below represent a sampling of the types of programs available.  There is a program for every need- personal, professional; contents or platforms.  Highlighted Products are specialized or focused on only one area.

|  | **Personal** | **Professional** |
|---|---|---|
| **Content** | **Smart Planet**<br>**Fathom**<br>Click2Learn<br>Learn2<br>Hungry Minds | **eMagister**<br>Pensare<br>Click2Learn<br>Learn2<br>Hungry Minds |
| **Platform** | **Not Applicable** | **Saba**<br>Pensare<br>Click2Learn<br>Learn2 |

Where possible we have selected public companies for our analysis, if a company is non-public it has been included because it fulfills our five selection criteria (Well-known Content, Interactivity, Updates and Reinforcement, Community and Centralized Administration) and is truly exceptional in one or more of these areas.

The majority of outstanding programs are in English, although some American companies are adapting their contents for European languages.  We have included one Spanish company that is representative of the programs currently available in Spain.

Each product is analyzed with the criteria for selecting an e-Learning program. In addition, a description of the service and products is offered.

# Click2Learn.com (NASDAQ:CLKS)
www.click2learn.com

**Clients:** Accenture, Prudential, PriceWaterhouseCoopers, Boeing, HP
**Partners:** Maxim Training, Vault.com, Vignette, Go2Net
**Revenue:** $34.7 million [€37.36 million] in revenue (FY99)
**Investors:** Vulcan Ventures, Marshall Capital Management

**Summary**

| Criteria | Comment |
|---|---|
| Well-known Content | Provided by Microsoft, Netg, Catapult (IBM) |
| Interactivity and Engagement | Interactive Courses and interactive course selection |
| Updates and Reinforcement | Unspecified |
| Community | Group Course Discussions |
| Centralized Administration | Administration through Click2learn.manager |

Click2Learn offers products both for the corporation and the individual. In the fall of 1999, Click2Learn introduced its content aggregation or portal services. Click2Learn is a market leader in the technology segment. They provide tools for authoring as well as learning management systems.

These tools include: **ToolBook II Instructor**, a sophisticated system for developing online learning applications; **ToolBook II Assistant**, a step by step approach to develop and deploy an interactive course; and **IconAuthor Net Edition** which offers the ability to develop interactive learning applications for CD-ROM or a network.

Individual products offerings include its portal, **e-Learning Marketplace**, offering content in IT and soft skills for industry professionals, students and higher education institutions. These courses are provided by specialized

suppliers. For example, Netg provides "all you can eat" bundles including Office 2000 curriculum and MCSE (Microsoft Certified Systems Engineer) curriculum.

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## Learn2.com (NASDAQ:LTWO)
www.learn2.com

**Clients:** MTV.com, Bloomberg.com, AOL, Beyond.com, SegaSoft (Heat.net)
**Partners:** Motivation Online, Beyond.com
**Revenue:** $13.6 million [€14.6 million] in revenue (CY99)
**Investors:** East/West Capital

**Summary**

| Criteria | Comment |
|---|---|
| Well-known Content | 90% of content developed in-house |
| Interactivity and Engagement | A programmable Learning Agent and StreamMaker technology |
| Updates and Reinforcement | No reinforcements; Students have extended access to course materials |
| Community | Access to an online mentor |
| Centralized Administration | Performance Motivator |

Learn2 offers a variety of products aimed at both individuals and corporations. These products are off-the-shelf or customizable. In addition to the Learn2 site, there is also a Learn2University.

Individuals can access Learn2 Consumer or Learn2 Everyday. **Learn2 Consumer** offers a range of courses covering office productivity applications, the Internet and professional certification. **Learn2 Everyday** provides a wide selection of more practical courses such as how to avoid burglary, how to eat sushi or how to buy a home. Courses are currently available primarily in English; however, there are courses available in Spanish. Courses in French, German and Italian will be introduced later in 2001.

Corporate solutions include **Learn2 University,** which is operated as an ASP. It includes over 250 interactive tutorials on topics such as programming, Microsoft Certification, finance and soft skills enhancement. **StreamMaker™**

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allows tutorials and content to be developed for streaming programs to be distributed over the company's intranet. The **Learning Agents™** can be completely customized to provide on-line help desk support and customer service, as well as inform visitors of new product launches. They can also serve a variety of e-commerce related functions, including site navigational host, site salesperson, and product training agent.

**Contact Information**

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# SmartPlanet

www.smartplanet.com

**Clients:** Not disclosed
**Partners:** WetFeet.com, ClearStation, Beyond.com, Smartmoney.com
**Revenue:** Division of ZDNet
**Investors:** None

**Summary**

| Criteria | Comment |
|---|---|
| Well-known Content | Provided by Zdnet, Barnesandnoble.com, etc. |
| Interactivity and Engagement | Audio and Video seminars |
| Updates and Reinforcement | Students can access archived courses |
| Community | Message board with Instructor-led courses |
| Centralized Administration | Individual account summary |

SmartPlanet provides *a la carte* courses or a subscription service for individuals looking for personal or professional improvement. Areas include Career & Business, Computing & Internet, Finance & Investing, Science & Technology, Arts & Society, Body & Mind, Hobbies & Recreation and Home & Family. **My SmartPlanet** keeps your learning organized. It is divided into three sections: Instructor-led classes, Self Study and Discussions. These can be sorted by date and are cumulative.

The distinguishing feature is that SmartPlanet offers is a monthly subscription. A **Standard Membership** for $15.95 [€17.22] monthly allows users access to all courses $19.95 [€21.53] and under. Courses costing over $29.95 [€32.33] are pay as you go. **Premium Courses** are also available for certification. A pay-as-you-go system allowing courses to be purchased individually is also available as part of the free membership.

**Contact Information**

SmartPlanet

www.smartplanet.com

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Foster City, CA 94404
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# eMagister
www.emagister.com

**Clients:** InfoJobs.net
**Partners:** Aulafacil.com, Airtel, OlaPymes, Telefónica Móviles
**Revenue:** Not disclosed
**Investors:** Group Intercom (Cable & Wireless)

## Summary

| Criteria | Comment |
|---|---|
| Well-known Content | Provided by EVE, UOC, Aula Activa |
| Interactivity and Engagement | Interactivity includes Listening and Checking boxes |
| Updates and Reinforcement | Depends on Supplier |
| Community | Depends on Supplier |
| Centralized Administration | Depends on Course, Supplier |

eMagister is a Spanish learning portal. They aggregate e-Learning products in Spain and offer the user a concise one stop-learning center. Users can choose between courses and programs. **The Courses** include Internet navigation, webpage design and creation and psychology. **The Programs** include MBAs, Master's Degree in E-business and Master's Degree in Engineering. Depending on the course or program selected, the material is available online. Some courses are given in a physical location.

Interactive learning via the Web consists of listening to an audio recording and then answering questions as to what you have heard. Because different institutions supply each course, the characteristics of each product vary widely. eMagister's advantage lies in the ability to access and choose between several suppliers for a given topic.

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# Hungry Minds (NASDAQ: HMIN)
www.hungrymindsuniversity.com

**Clients:** Not disclosed
**Partners:** Amazon.com, Business 2.0, Kaplan, The Princeto n Review
**Revenue:** $243.3 Million [€262 million] in Revenue ending September 2000
**Investors:** Public Company

**Summary**

| Criteria | Comment |
|---|---|
| Well-known Content | Provided by UC Berkley, New York University |
| Interactivity and Engagement | There is a special section for Media |
| Updates and Reinforcement | Depends on Course |
| Community | There are Site and course discussions |
| Centralized Administration | Customized sites available |

Hungry Minds University is a US site that serves as an e-Learning Portal. Courses are divided into three large groups: Academic Learning, Professional Development and Lifelong Learning.

**Academic Learning** is divided into three sections: On-line Courses, Degrees and Certificates, Universities and Student Services. **Professional Development** includes Accounting, Teacher Training, Management, Career Development, Securities, Information Technology and Marketing. **Lifelong Learning** includes a wide range of topics ranging from Arts & Literature to Travel & Leisure.

Each course is provided by well-known sources. The variety of courses and methods for participating are exhaustive. Depending on the category, there are eight areas to explore in order to learn about a specific topic. These categories are: Experts for Hire, Websites, How-to's, On-line Courses, Degree

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Programs, Discussions, Books and other media.  Either the user is presented with the areas are available for a given subject, or the user can search for topics available as a How-to, for example.

Private learning solutions are also available.  Services include: Leading online universities such as UC Berkeley, Penn State, and UCLA; Extensive course offerings in academic, training, professional development, and lifestyle learning; Instructor-led and self-paced courses; Degree and certificate programs; Customized search and directory, and eLearning products and services.

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# Fathom

www.fathom.com

**Clients:** Not disclosed
**Partners:** Columbia University, London School of Economics, Sun Microsystems
**Revenue:** Not disclosed
**Investors:** Incubated within Morningside Ventures, Inc

## Summary

| Criteria | Comment |
|---|---|
| Well-known Content | Provided by top tier universities |
| Interactivity and Engagement | Courses are highly interactive |
| Updates and Reinforcement | Related material reference |
| Community | Course Discussions; real-time chat |
| Centralized Administration | None, Individual Learning is offered |

Fathom has gathered together some of the most respected names in education: Cambridge University, the London School of Economics and Political Science, the British Library, the University of Chicago and others. Fathom acts as an intermediary between the end user (or student) and the affiliated organizations.

Fathom offers both **free content** as well as **University Courses**. While the university courses are from exceptional universities, the introduction of **Learning Trails** is the most interesting (and free) aspect of Fathom. Knowledge is a network of connections- Learning Trails make the connections from point to point. A trail is a group of Fathom features or reference entries that explore a common subject or theme. Some trails cross several topics as they explore the subject. As a consequence, a single feature of Fathom may reside on multiple trails. To explore information related to the current trail, the user clicks on the appropriate link.

The demonstration on the Fathom website does an excellent job of explaining this concept. In order to fully understand the concept, the graphical representation they present is necessary. Currently, Learning trails are free. However, this could change in the future. Fathom has not officially launched yet.

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# Pensare

www.pensare.com

**Clients:** Unisys, Hallmark, Fujitsu, Duke University's Fuqua School of Business
**Partners:** Cap Gemini Ernst & Young (BLUR), Jeff Sampler
**Revenue:** Not disclosed
**Investors:** AVI Capital Services, AIG Horizon LLC, Associated Venture Investors, Arcadia, Battery Ventures, GE Capital, Media Technology Ventures, WR Hambrecht & Co

**Summary**

| Criteria | Comment |
|---|---|
| Well-known Content | Provided by HBS, Duke University, Wharton |
| Interactivity and Engagement | Interactivity includes Voice, Diagram, Image, and Video |
| Updates and Reinforcement | Time sensitive content is used |
| Community | Chats, newsgroups, forums and discussions |
| Centralized Administration | Web-based forms administration |

Pensare offers both a platform and content services. The **Content Services** are divided into six areas: Finance, E-commerce, Marketing, Management, Leadership and Customer Relationships. These areas contain *Expert Content-* from academic partner institutions; *Multimedia Presentations-* using Real Network's Real Player, Microsoft Media and Macromedia Flash; *Collaboration Tools-* including work groups and discussion chats; and *Development Tools-* templates that allow the quick creation of workshops, tools and presentations.

**Pensare Learning Platform** allows administrators to design **Knowledge Communities** within their organization. By combining the six areas of content services and collaboration tools, a customized learning solution can be created. Pensare is a modular service allowing for scalability.

Pensare can also design customized training courses. Other services include: hosting, web collaboration tools, performance support, tracking tools, mentoring, personalization and virtual events organization.

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# Saba (NASDAQ: SABA)

www.saba.com

**Clients:** Cisco, Lucent, DalmerChyrsler, Ford, GE, 3com and others
**Partners:** Oracle, Microsoft, IBM and iPlanet, among others
**Revenue:** $6.7 Million [€7.2 Million] in 1999
**Investors:** Sequoia Capital, Crosslink Capital, Comdisco Ventures and others

## Summary

| Criteria | Comment |
|---|---|
| Well-known Content | Content is available through the Saba Exchange |
| Interactivity and Engagement | Not Applicable |
| Updates and Reinforcement | Not Applicable |
| Community | Not Applicable |
| Centralized Administration | Learning Enterprise features centralized administration |

Saba is a platform provider. They currently offer three products: the Saba Network Platform, Saba Learning Network and the Saba Learning Enterprise. Saba platforms are content neutral and highly scalable.  Additionally, Saba platforms work with many languages.

**Saba Network Platform**'s n-tier Internet architecture makes use of Enterprise Java Beans (EJB), Java Server Pages (JSP), XML, and XSL. The platform features an XML-based InterConnect framework for transferring information between Saba applications and other systems such as HRIS, Financials, ERP, SFA, and CRM.

**Saba Learning Enterprise** is an Internet based learning management system. It allows companies to establish the learning needs of individuals, measure an individual's progress as well as select and purchase learning materials.  Saba

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Learning Enterprise can be hosted in-house or through a Saba-hosted solution: Saba Learning Network.

**Saba Learning Network** provides more basic functionality than the Learning Enterprise and is best suited for midmarket enterprises. It features basic catalog building, registration, competency management, e-marketing capabilities, and tight integration with the Saba Exchange. The Saba Learning Network is designed for Associations, Business Units, Workforce Education, Growing Enterprises and Training Providers.

**Contact Information**

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| Phone: +1-650-696-3840 | Staines, Middlesex TW18 4AX |
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# Conclusions

e-Learning offers a great opportunity to learn more about almost any topic. One of the great advantages of this type of education is that there do not have to be any examinations or homework involved. Learning does not have to be tied to any degree-oriented curriculum.

Just-in-time learning provides the ability to learn just what you are looking for, in a reduced time frame and in straight to the point environment - bypassing any superfluous points (This is analogous to speed reading).

Before deciding to enroll in an e-Learning program, there are several points that depend on you rather then the services offered. You need to have the answers to these questions firmly in mind.

1. What are your learning preferences?
2. Do you want a just-in-time course, or a more comprehensive one?
3. Are you self-motivated? No one is there to sit you down at the computer.
4. Is your computer and connection sufficient?

Finally, the learning models currently used will be further developed over the next few years. As we move towards a pay-for-content Internet, subscription services should become more common. A subscription to one of these services should be able to provide an all-in-one learning solution. After all, every article we read is part of an ad-hoc learning experience. Subscription services will help to give order and sense to information as well as add value by helping us apply what we read and learn.

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# Conferences

The Future of Learning- Learning for the Future: Shaping the Transition
April 1-5, 2001. Dusseldorf, Germany
http://www.fernuni-hagen.de/ICDE/D-2001

The Rotterdam Market for Educational Programs & e-Learning
April 8-10, 2001. Rotterdam, The Netherlands
http://www.rotterdammarket.org

11th Annual e-Learning Conference & Expo
April 17-20, 2001. Washington, DC USA
http://www.elearningexpos.com/

Interprise e-Learning
May 14-15, 2001. Narvik, Norway
http://www.prokomweb.com/elearning/

# Additional Products

Spanish Sites:
www.educanet.com
www.educateca.com
www.edunexo.com
www.aprobados.com
www.ahoraque.com
www.directivosnet.com

English Sites:
www.eHow.com
www.univeristy.com
www.cyberstateu.com

*e-Learning: Digital Education*

[www.digitalthink.com](http://www.digitalthink.com)
[www.corpedia.com](http://www.corpedia.com)
[www.knowledgenet.com](http://www.knowledgenet.com)
[www.blackboard.com](http://www.blackboard.com)
[www.cognitivearts.com](http://www.cognitivearts.com)

# Infonomia.com Resources

**Extra!-Net** Number 564

[http://www.infonomia.com/english/extranet/index.asp?idm=2&idrev=1&num=564](http://www.infonomia.com/english/extranet/index.asp?idm=2&idrev=1&num=564)

**Didactic Net**

[http://www.infonomia.com/english/applied/files.asp?idm=2&idrev=28&numMax=0)](http://www.infonomia.com/english/applied/files.asp?idm=2&idrev=28&numMax=0)

**Educational Considerations**

[http://www.infonomia.com/english/applied/files.asp?idm=2&idrev=12&numMax=0)](http://www.infonomia.com/english/applied/files.asp?idm=2&idrev=12&numMax=0)

**Food for Thought**

"Lessons of a virtual timetable"- *The Economist*
[http://www.infonomia.com/english/food/food18.asp](http://www.infonomia.com/english/food/food18.asp)