

## BUSINESS INFORMATION *and the internet*

This brochure summarises key results from a research project that looked at how businesses were - and were not - using the internet to find information.

The project was funded by the British Library Research and Innovation Centre, and carried out at the University of Strathclyde Department of Information Science and the Library Information Technology Centre based at South Bank University.

“Its time saving. Despite all that we’ve said about it being slow and all the rest of it. Having instant access to information.”

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# Business Information and the Internet

Summary results from an intensive study of small companies in Glasgow and London

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The full 182 page report is available at low cost, on demand from the British Library Document Supply Centre (see back page). Individual chapters are also available free, in pdf format, on the project web site at <http://business.dis.strath.ac.uk/project/final/>

“Sometimes pages are so slow to load, I give up and try something else”

**“the future way to do business”**

## Project basics

The project was carried out by the University of Strathclyde, Department of Information Science, Glasgow, and the Library Information Technology Centre (LITC), South Bank University, London.

It was funded by the British Library Research and Innovation Centre (BLRIC) as part of its Digital Library Research programme, and ran from August 1997 until November 1998 inclusive.

The research focused on two groups of small companies, 29 in total: based around Glasgow and London. They all had fewer than 100 employees, and came from a variety of sectors. They all had internet connections at the start of the project.

*See the back page of this brochure for more information on the researchers and the companies that took part.*

The **research methods used** were:

- Questionnaires (at the beginning and end of the project)
- Interviews and visits
- Focus groups
- Internet Business Club, focused round a specially created business information gateway and a phone/email helpline supported by a business information expert

This section is on the web at <http://business.dis.strath.ac.uk/project/final/BII-2.pdf>

## The project's aims

- To investigate the barriers to use of the internet by SMEs.
- To try to identify levels, and indicators, of internet engagement.
- To identify the types of internet resource that are found useful by people in small business. To find out *why* they think the resources are useful and how this fits in with their overall pattern of information use.
- To gather information on the feasibility of creating a 'virtual library' for Small and Medium-sized Enterprises, supported by information professionals.

## Good things about the internet

The companies certainly saw benefits to the internet, that could make it worth all the struggle. These included:

- saving time and therefore money,
- speed of access which is seen as contributing to business efficiency and sometimes to customer service
- immediacy of communication,
- fast and convenient access to a wealth of information (no opening hours and no need to leave your seat)

They could also see ahead (and some of them were experiencing) the way in which the internet could provide new opportunities, new ways of working and new ways of doing business..

"I mean it's a saving, for a start it's cheaper than snail-mail, isn't it?"

"I don't even go to work, its great. I mean seriously, there's a lot of things you can do from home now ..."

"So if we can send 200 on email, then it means we don't have to stuff 200 envelopes"

## Barriers to Use of the Internet

We used the focus groups to pinpoint barriers to use of the internet, but information was also gathered during interviews. The key barriers were technical, search related, physical, to do with Internet Service Providers or bad site design, cost related, or related to lack of training or lack of trust in staff.

### Technical barriers

These included: speed and download time of pages, problems in configuring hardware and software (critical points were any installations or upgrades), additional programs needed for viewing internet resources (e.g. Javascript, Acrobat), viruses, crashing browsers, unreliable email. and difficulty of keeping pace with what is going on.

### Search problems

These included: difficulty of finding sites through search engines, getting too many hits, URLs changing or disappearing, unmemorable addresses, lack of easily searchable URL address lists for the UK, lack of awareness of browser features.

### Physical problems

Notable problems were: lack of time, changes in personnel, limited number of computers with internet connections in the company (sometimes only one), lack of opportunity to learn through exchange of experience.

### Internet service provider (ISP) problems

This might be poor technical support, difficulty getting through, or unreliability. The participants found it difficult to keep up with standards and alternatives.

### Site design

Our companies disliked badly designed sites, e.g. designed without technically low grade users in mind, and sites that require registration before use.

### Cost

Not so much connection charges as staff time. However, if the companies perceived a good business case for using the internet much more effectively, they might be willing to invest in it.

**Further barriers were:** Lack of training and Lack of trust in their staff (not a major barrier, but there was some fear of time wasting)

### Learning points

Small businesses are managed by busy people who don't have time to become techies. They need ongoing support and advice about the basics, not just one-off training or grants. Those providing information on the Net need to make sure they are obsessed with convenience to the user, not the latest technology.

This section is on the web at  
<http://business.dis.strath.ac.uk/project/final/BII-14.pdf>

"... it will normally probably crash anyway!"

"..it just gets converted into scrambled text if you open it"

"I mean who does know what the search engines search for? ... someone must know.

"Probably needs some sort of agreement between various service providers.... they'll be put in a public directory that people can look up."

"..you're there for hours waiting for silly little pictures to download"

"Only the cost in time wasted not so much actual cost."

"... my son, I get him in to do that kind of thing for us"

"..there's an awful lot of hopes and aspirations for using all this technology, but there isn't really the back up, the human back up to make all these things work."

"Yes we only have the one machine ... if anybody wants anything they have to come to me so I have to stop what I'm doing"

"...even if you think you've got the time, two minutes later, there's somebody standing at your desk wanting something & you have to click off."

"It's a problem in a small company isn't it?... you've got to be the IT man, you've got to be the Health and Safety man, there's no one else you can ask."

“In time people will probably get their newspapers that way...”

“normally we would phone the company for their catalogue, which can take a couple of days but we really need it that afternoon”

“It’s not nice to read on screen. You can print it.”

“Printing it is not really the same as reading it...”

“It’s much more immediate as a resource isn’t it?”

## What types of information are used and preferred?

The companies were using a **wider variety** of information types by the end of the project. More specifically, a wider range of *internet* information types was being used by the end of the project. (We asked people about the information they used at both the start and the end of the project)

### What’s used a lot?

Frequently used information in print form (such as newspapers, journals, and product literature) showed increases in usage in electronic form, starting to bring them towards the level of use in print form. Types of information which were low use in paper form (such as European Union, Patents) showed little or no increase in usage in electronic form.

### Substitution: process, not medium

Only a few companies seemed to be substituting electronic for print. Use of the internet may be replacing some information gathering activities, such as visiting the library, or phoning round for information.

It seems that one *process* of information gathering is being matched another process, rather than one *medium* being matched against another. The internet was a preferred ‘just in time’ source, but ‘just in case’ print sources were not being abandoned.

### What’s valued?

- Sites offering local information.
- Search engines, whilst they caused frustration, were evidently also valued.
- Speed and convenience were valued highly. There was, for example, the greater convenience of using the internet as opposed to visiting a library. Where print was perceived as being more convenient, then it was preferred.

## Learning points

A reluctance to migrate to internet sources looks like simple pragmatism. If experience shows that gathering information on the internet takes time and is frustrating, then a more convenient method (like print) will be preferred.

The internet could become the favourite ‘just in time’ source, and possibly the overall favourite, but it needs to be easier and quicker to use.

Businesses seem to be increasing the information types they use, to include both electronic and print. It is, of course, possible that use of print may decline as internet sources become more trusted, and more convenient to use.

This section is on the web at

<http://business.dis.strath.ac.uk/project/final/BII-15.pdf>

You don’t have to leave your seat”

you can put it [a print publication] in your bag and read it on the bus”

“To actually go off to a library and get the same information would take you several hours... So the fact that you have it on hand and you don’t have to leave the house, that’ll save money.”

I like Yahoo!”

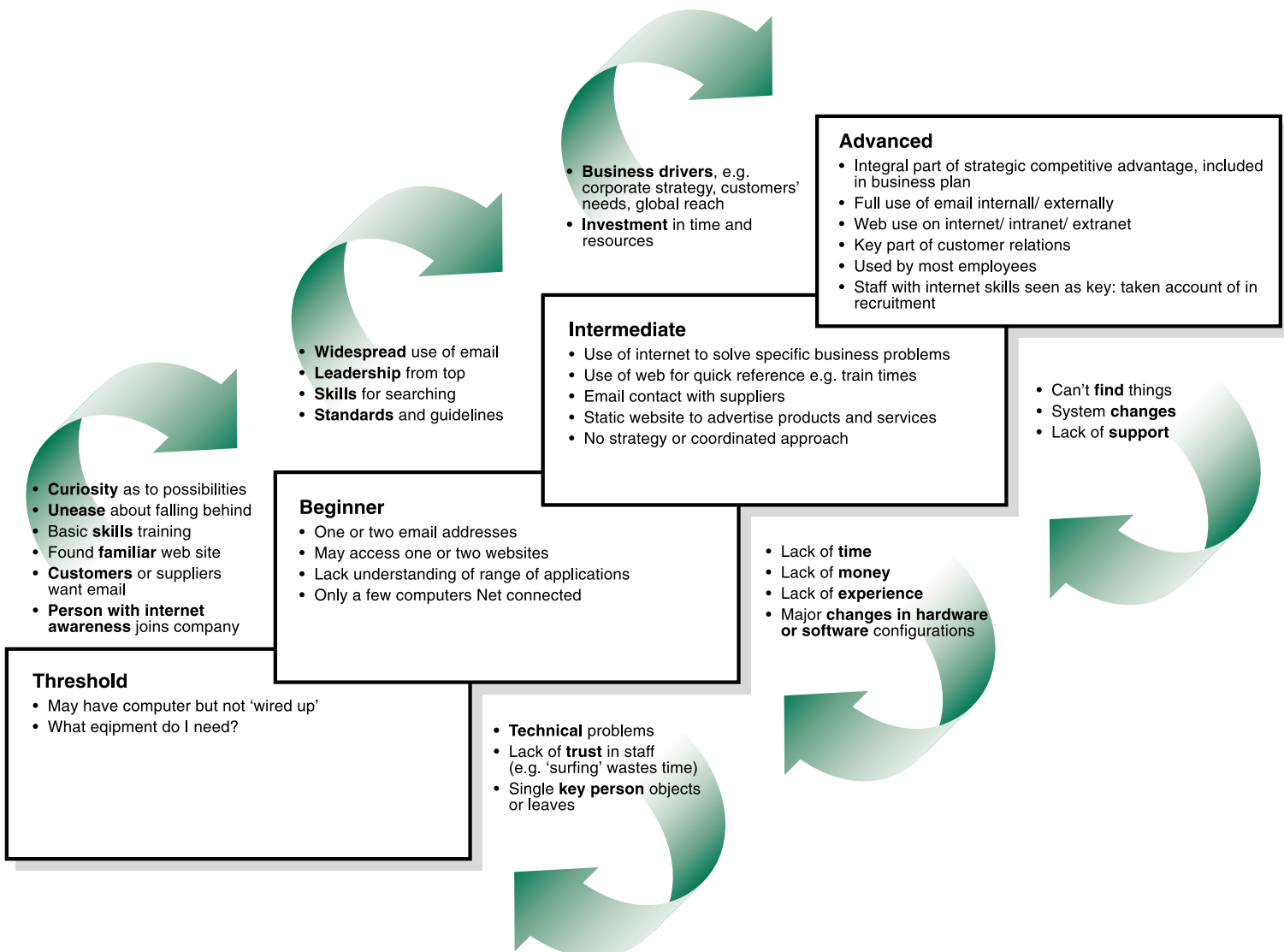
“Its useful for businesses & information that we’re looking for, like market research, for that it’s been really useful, because we wouldn’t have found out half the stuff that we found out if we didn’t have it.

## Staircase of Internet Engagement

Taking the information we gathered in various stages of our project, we identified factors which fostered or deterred engagement with the internet for business purposes.

There appear to be several stages in the evolution of the internet in the SME environment. We developed a model of Internet Engagement with Threshold, Beginner, Intermediate and Advanced levels.

The various levels of engagement with the Internet in SMEs can be expressed as a Staircase on which companies may be positioned. It shows not only the possible stages of engagement, from Threshold to Beginner through Intermediate to Advanced, but also factors tending to move companies up and down the staircase.



The Staircase model could be used:

1. to monitor changes in the use of the internet as an information source over time;
2. to assist in policy making by facilitating comparisons;
3. to enable services wishing to develop virtual support services for SMEs to plan their service and marketing appropriately.

### Learning points

Advice and options need to be appropriate to the company's stage of development. It seems to us that currently there is not enough consideration of basic support needed at the lower stages of development. This could in the medium term delay full exploitation of the internet.

Companies can go down the staircase, as well as up. Support agencies cannot assume that, once started on the internet, companies will make a smooth upward progression.

This section is on the web at <http://business.dis.strath.ac.uk/project/final/BII-18.pdf>

It may appear that there is not yet a market for the provision of information services to Small and Medium Sized Enterprises (SMEs) via the internet. Potential customers lack the know-how or motivation to use the Web for seeking information, preferring to develop its potential as a marketing tool. There is little or no research which shows that information gateways have any high value for small businesses which are relatively new to the internet.

However, skilled information services could be marketed to as Virtual SME Libraries. The **dangers** are those which have been associated with other 'one-stop shop' services - that is, not being reliable, tangible, comprehensive, up to date and available in the format and with the convenience required.

The new **challenge** is for library and information staff to integrate their skills and resources with the infrastructure and delivery mechanisms with which users are or will be familiar.

This is impossible without considerable investment of effort to understand the technical problems users face, the business needs and opportunities offered by the internet, and the role which Web and email based information services might play for individuals.

It would be logical for the numerous agencies which support small business to cooperate on the task. Efforts in the library sector have shown that successful cooperation requires political will, compatible personalities, major players, a viable financial structure, and appropriate technology. At the moment, political will and financial structure seem to be lacking.

However, the internet can facilitate communication and cooperation. The internet provides an opportunity to grab the attention of businesspeople, and also provides the means to make the most of resources, by networking with other professionals who share the same vision of an information-empowered small business community.

## Is a 'virtual library' for SMEs feasible?

This section is on the web at <http://business.dis.strath.ac.uk/project/final/BII-16.pdf>

### Alternative models

There are two models worth exploring. One is based on the investment of risk capital to create high value information content and sophisticated aggregation and integration systems for managing information. In this model, control would be acquired over valuable intellectual property so that its scope and value can be carefully controlled. Publishers, internet portals and online host service aggregators are likely to take this route as an extension of existing services. However, they may have difficulty finding the means to deliver personal support locally over a widely dispersed area and may need to acquire local agents.

An alternative model for the service is based on acting as agent for a group of companies. In this case emphasis is placed on first making contact with and understanding a company's needs, then acquiring supporting services and skills as required and re-using them wherever possible. A virtual community or coalition could also act as an agent for its members. This will only work if the service has credibility, long-term reliability, excellent customer care and the capacity to make contacts and deals with other agencies and organisations.

### Questions worth further investigation:

- The extent to which resources could be shared (e.g. what level of tailoring is needed in order to make sure that companies in a specific location or industry sector feel that the service is 'theirs'?)
- The extent to which cooperation between services is feasible
- The combination of partners which could deliver the most effective blend of services

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### Project website

A website with links and descriptions of business internet sources was created specially for the project. Its usage was monitored through the project. The chapter can be downloaded at [business.dis.strath.ac.uk/project/final/BII-5.pdf](http://business.dis.strath.ac.uk/project/final/BII-5.pdf)

### Questionnaire results -

are given in full in these sections

### Focus group report

A 14 page structured summary of the focus groups, with a large number of quotations from project participants.

### Company case studies

There is a case study for each of the companies which participated in the project. These give information on who was participating, and how they were using the internet at the start of the project. Observations on their use of the internet through the project are also noted.

At 34 pages, this is the longest section of the report.

## The companies

The companies in the project came from a wide variety of sectors. The project participants were mostly managers, in some cases the Managing Director. Librarians and information professionals were excluded from the study.

Benchmarking Property Portfolio Returns
Business Travel Agency
Car Park Operator
Ceramic Tile Import & Distribution
Charity (Registered)
Chartered Accountants
Consultant Engineers
Corporate Brochure Design & Production
Dental Practice
Environmental Management Consultants
Event Promotion
Hotel/Restaurant, Housing for the Elderly
Interior Designers
Legal Services
Marketing & Communications
Media Monitoring/Press Clipping
Printing
Promoting Share Based Investment
Public Relations
Ship Design/Naval Architecture
Telecommunications Equipment/Training & Consultancy
Trade Association Supporting Derivatives Industry
Quantity Surveying

## The Report

The full report may be purchased as photocopies or microfiche from the British Library Document Supply Centre, Boston Spa, Wetherby, West Yorkshire, LS23 7BQ, UK.

Allcock, Sue; Plenty, Annette; Webber, Sheila; Yeates, Robin. *Business Information and the Internet: Use of the Internet as an Information Resource for Small and Medium-sized Enterprises: Final Report*. London: The British Library, 1999. (British Library Research and Innovation Report; 136) ISBN 07123-9731-0, ISSN 1366-8218, RIC/G/381.

Individual chapters are also available free, in pdf format, on the project web site at <http://business.dis.strath.ac.uk/project/final/>

## The researchers

**University of Strathclyde Department of Information Science:** <http://www.dis.strath.ac.uk/>

Located within the Business School, the Department has carried out funded research projects for bodies such as the European Commission and The UK Department for International Development. Strathclyde University has one of the largest and most highly rated Business Schools in the country, with a successful record of work with the private and public sector on research and consultancy.

Sue Allcock experience in business information includes work at Prudential Bache, Touche Ross, and Linklaters & Paines. She started up an information brokerage, First Contact Ltd, together with a business partner, which was acquired by Disclosure Ltd in 1993. Sheila Webber is a Lecturer in the Department. She has given talks and seminars on business information on the internet, in the UK and overseas, and since 1994 she has maintained an internet site with links to business information sources. Before joining the Department she was Head of the British Library's Business Information Service.

**Library Information Technology Centre:** <http://www.sbu.ac.uk/~litc/>

Founded in 1982, LITC specialises in the application of IT to information management and libraries. It is a self-financing division of the Department of Learning and Information Services at South Bank University, London. Its mission is to undertake and communicate applied research to inspire and assist 'libraries' of the future. Funding is received from the European Union, Higher Education Funding Councils and other bodies.

Robin Yeates was Senior Researcher and Centre Manager of the Library Information Technology Centre, South Bank University. He has wide experience of managing and participating in research projects concerning various aspects of library and information technology.

Before joining the project, Annette Plenty had successfully completed the postgraduate Information and Library Studies course at the Robert Gordon University. She came with experience of working in business and of meeting the information needs of businesspeople.

## The Funding body

**The Library and Information Commission** <http://www.lic.gov.uk/>

In 1999 the Library and Information Commission absorbed the Research and Innovation Centre (formerly part of the British Library). The LIC thus added funding of information and library research in the UK as a central part of its remit.

The Library and Information Commission was set up in 1995 by the Department for Culture, Media and Sport. It is a national source of Expertise, advising UK Government on all issues relating to the library and information sector.

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