Web 2.0:
How the next generation Internet is changing financial services

Patrick Towell, Amanda Scott and Caroline Oates
The Centre for the Study of Financial Innovation is a non-profit think-tank, established in 1993 to look at future developments in the international financial field – particularly from the point of view of practitioners. Its goals include identifying new areas of business, flagging areas of danger and provoking a debate about key financial issues. The Centre has no ideological brief, beyond a belief in open and efficient markets.

**Trustees**
- Minos Zombanakis (Chairman)
- David Lascelles
- Sir David Bell
- Sir Brian Pearse

**Staff**
- Director - Andrew Hilton
- Co-Director - Tim Jones
- Senior Fellow - David Lascelles
- Programme Coordinator - Sam Mendelson
- Editorial Assistant - Kerry Thompson

**Governing Council**
- Sir Brian Pearse (Chairman)
- Sir David Bell
- Geoffrey Bell
- Robert Bench
- Rudi Bogni
- Peter Cooke
- Bill Dalton
- Sir David Davies
- Prof Charles Goodhart
- John Heimann
- Rene Karsenti
- Henry Kaufman
- Angela Knight
- Richard Lambert
- David Lascelles
- Robin Monro-Davies
- Rick Murray
- John Plender
- David Potter
- Mark Robson
- Sir Brian Williamson
- Peter Wilson-Smith
- Minos Zombanakis

CSFI publications can be purchased through our website [www.bookstore.csfi.org.uk](http://www.bookstore.csfi.org.uk) or by calling the Centre on +44 (0) 207 493 0173

Published by
Centre for the Study of Financial Innovation (CSFI)

Email: info@csfi.org.uk
Web: [www.csfi.org.uk](http://www.csfi.org.uk)

© CSFI 2007
This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of the Centre.

ISBN: 978-0-9551811-4-6

Printed in the United Kingdom by Heron, Dawson & Sawyer
About the authors...

Patrick Towell is company director of Patrick Towell Consulting, a strategic design management consultancy. He is a member of the UNESCO UK Commission’s Communication & Information Committee and Information Society Working Group, with particular responsibility for WSIS (the UN World Summit of the Information Society) and e-Learning. He is also vice-chair of the British Standards Institute (BSI) Committee for Learning Technologies. He holds a Postgraduate Diploma in Film & Television from the University of Westminster, a Postgraduate Diploma (Distinction) in Computing Science, University of Cambridge, and an MA in Mathematics from Corpus Christ College, Cambridge.

Amanda Scott was, until recently, a research consultant at Freshminds. She specialises in new media and online advertising research, analysing emerging trends and key opportunities for FreshMinds’ clients. Her published reports include papers on the future of online advertising delivery and the impact of Web 2.0 on online marketing techniques. Prior to FreshMinds, Amanda worked at business psychology firm Nicholson McBride and PA Consulting. She holds a BA Hons degree in Experimental Psychology from Oriel College, Oxford.

Caroline Oates is a research consultant in FreshMinds’ new media and technology division. She joined FreshMinds in 2004 and has played a key role in growing this sector within the company. Recent research includes new product development, competitor intelligence studies, trend spotting and consumer insight work. Her published papers include a recent piece on the impact of Web 2.0 on the future of the research industry. Caroline holds a law degree from King’s College London.
Web 2.0: How the next generation Internet is changing financial services

By Patrick Towell, Amanda Scott and Caroline Oates

Preface

Is the Internet helping to redefine economic activity, or is it just another channel? Did the bursting of the dotcom bubble in 2000 bring an end to the hype and overvaluation of internet companies? Or was it just a pause?

In this paper, Patrick Towell, Amanda Scott and Caroline Oates take us on a journey of discovery to find out what is driving the recent resurgence of interest around the web, and what all of this might mean for financial services.

Illustrated with screenshots from a wide range of financial services and other leading websites, the case is made that the web is important again - and that the long term implications for financial services are likely to be profound.

Whether your interest is in margin compression from comparison sites, democratisation from day-trading portals or disintermediation from exchanges, you will find that someone out there is almost certainly already working on it - and he or she wants to take your business.

The intellectual underpinnings of all this activity are becoming clearer, whether through books such as Yochai Benkler’s ‘The Wealth of Networks’ or websites such as Tim O’Reilly’s www.oreilly.com. The principal distinction that makes Web 2.0 different is that this time things are happening that are characterised by sharing and the creation of communities – whether of information or of people. Technologies are emerging to facilitate all of this, allowing us to become part of the online world of user-created content that characterises so much of what the new web businesses are about.

The challenge for all of us in financial services is to try to keep on top of what is happening and to judge when interesting activity starts to become a business opportunity. Or indeed a threat. This paper should prove to be a useful and stimulating contribution to the debate.

Tim Jones
Co-Director
Centre for the Study of Financial Innovation
Summary

Web 2.0 - The Internet

The bursting of the dot com bubble in 2001 marked a shake up of the technologies and business models that weren’t working and a re-focus on those that were. Many of the companies that survived, and the ones that have shown success since, have one thing in common: they have *features that allow users to participate with each other in the co-creation of information - thereby making it more relevant.* It is this interaction between users and content – in the form of co-editing, ranking, filtering and personalisation – that defines sites, technologies and services as being web 2.0.

‘2.0-ness’ is not then, in most cases, about entirely new technologies. It is about developing technologies which enable the Internet itself to become part of our social fabric. It is a move away from the myriad of static content which previously made up the web, to a dynamic infrastructure which facilitates the sharing of human knowledge in today’s digital economy.
Web 2.0 provides significant challenges and opportunities for retail financial services. Widespread, fast connectivity and transparency of data - paired with increased participation with the information - is creating dynamic collective knowledge across all topics, including financial products. This has implications for the power balance between expert and non-expert – and for what constitutes value in financial advice. In the web 2.0 world, value will depend more on soft factors than on information.

Increasing personalisation of our retail experiences (think of Amazon’s recommendations for example) will lead consumers to expect customisation in other spheres, including financial products. Web 2.0 applications could allow financial providers to offer more advanced evolving products that track and react to changing user behaviour.

Amazon’s personalisation software

The web 2.0 culture of openness will also further encourage ‘ethical’ purchasing from consumers. The role of financial providers in facilitating this lifestyle choice could be a significant differentiator.

Web 2.0 also facilitates a new model of ‘social’ financial products. An eBay equivalent for loans already exists. Given critical mass (and some caveats), products like that could become significant competitors in the market.

In particular, equity trading sites are already reducing the financial barriers to small-scale investments. Sharing knowledge about different aspects of a market or company through these sites can help users make more informed decisions, making equities more accessible for a mass audience. Hedging equity investments using the burgeoning economies in virtual worlds could also become a reality.
There are obviously important considerations for governance - from creating a dialogue with consumers to internal knowledge-share and a culture of openness that encourages ethical corporate behaviour.

Making sense of change

Trends in the areas of business, the Internet and ‘culture’ (what we do, believe, think, are…) are not independent. They affect each other. One cannot consider the ‘direction of travel’ in one without looking at the ways things are heading in another. We are all just people, after all - whether we’re at work, consuming, using the Internet or just being.

Business is changing. Among a myriad of fundamental changes, there is a noticeable shift towards incorporating public goods in private enterprise. The Corporate Social Responsibility agenda isn’t just about the environment. And these new and more rigorously policed models of corporate governance impinge on the Financial Services sector as well.

Our societies are changing. Even the fact that this paper is published in the UK and yet needs to recognise multiple societies across the world, and multiple societies in the UK, is recognition of a fragmentation of identity.

Does the Internet (or technology generally) lead or follow? Few technologies are designed – their purposes defined up front. There is a serendipitous aspect to their adoption: people use what they can get hold of, to their own ends, be they terrorism, social action or sharing their tastes in music.

We attempt to answer here:

- What attributes are essential to successful Financial Services products, especially those with an online element?
- How do developments in the Financial Services sector provide evidence, models and ideas for future innovations?
- What do you, as a person associated with the Financial Services sector, need to do about it?
Business technology trends

Wasn’t there an Internet boom around 2000? Haven’t we already had a revolution in business – marketing, selling and distribution – enabled by these technologies? Isn’t what we are seeing just a continuation of this trend – but this time with more realistic business models?

There was an Internet boom. It was financed by venture capitalists who believed the numbers. The numbers were predicated on the technocratic belief that because it was technically feasible to reach large swathes of people, then it would happen. This ignored the human factor – issues of trust, social convention and ‘non-logical’ reasons for buying products and services.

Business-to-business transactions are still heavily dependent on personal networks, relationships and, if not physical propinquity, then at least cultural closeness. Business-to-consumer interactions continue in most sectors to be dominated by peer referral, brand perception and the overall ‘customer experience’.

The large potential market and the assumption of boundless profitability were also often predicated on the assumption that sections of the ‘outbound’ logistics side of the value chain would be ‘disintermediated’ by online-only businesses. Incumbent brokers and distributors would be wrong-footed, and the new technology-enabled upstart would perform a land-grab – not just of customers but also of margin.

Whilst this has happened in books, music and travel and is now disrupting filmed media, not all sectors have been so amenable to the new model. It all depends on what people are really buying – and why. Our motivation to purchase is often an intangible like ‘fun’, ‘security’, ‘peace of mind’, ‘belonging’, ‘conviviality’, ‘expertise’; and these are proving less easy to send down the wire than enthusiasts predicted in the late 90s and early 2000s.

Secondly, of course, incumbents are fighting back. Some of them have changed their business models; they have customers for whom loyalty or convenience count for a lot. Going to the supermarket can be as much about getting out of the house as it is about having your larder stocked. The use of non-Internet IT in data-mining and relationship building in supermarket chains has been incredibly effective – and built a platform for them to launch brand extensions in unrelated fields, such as retail financial services.

Thirdly, the intermediaries didn’t evaporate. There are just different ones now. Websites which ‘harvest’ and compare mortgage, insurance and other financial products are both increasing and democratising price, product transparency and
comparability. Consider my surprise when I spotted a website advert on the London tube advertising a comparison site for betting – truly a derivative product, if there ever was.

The consequence of all this is that it has taken a while to realise that there isn’t such a thing as an ‘Internet’ business. Like all the other technologies that have revolutionised the way we live, it has been assimilated into our lives, our jobs, our business plans. Similarly, with few exceptions, we don’t have (just) telephone businesses or (just) train businesses.

Whilst they may have started that way, they are evolving into what customers really need – integrated, one-stop customer support or travel/leisure businesses, to take these two examples. Even BT realises that it is about connecting people – rather than selling telephone minutes and equipment. It is just that the ‘despecialisation’ of the innovation-inspired product categories resulting from the Internet is more rapid than with telephony and railways.

So what does this mean practically?

The Internet (together with associated digital media) is just part of an overall mix of products and services; just part of potential customers’ engagement with you; just part of the overall customer experience; just part of your delivery of post-sales service.

The best cross-check is to consider your behaviour as a customer – researching the market, product choices, comparisons online before you buy; checking out potential suppliers or business partners online; expecting documentation, upgrades and complementary products available online; demanding responsiveness out of ours and remotely via email or text.

Still don’t believe it? Here’s a straw poll taken on the flight on which one of the authors was writing this article.

Man sitting next door works in the health business in New Zealand. Has come from a clinical background in blood tests; now runs the information services integrated across multiple private and public sector organisations - which mean that test results are available to health professionals in multiple institutions as soon as they are entered. Result – reduced retesting (lower cost, fewer holes in arm), more timely and informed clinical decision-making and a subtle change – the ability of hospitals to specialise in certain areas and yet provide the full range of services.

Woman stretching her legs at the back of the plane works in health – with responsibility for educating patients and staff. Part of this is e-learning – and as she
has come to this late herself, she inspires those who have never used the technology to ‘give it a go’ and discover a whole world of support and advice for their condition. The same woman also runs a side business giving singing lessons, but there is an e-element – she keeps in touch with her flock of budding Whitneys by email, sending them hints and tips, useful references, their exercises for next time etc.

The said author has a ‘virtual PA’. They meet up no more than once a month, but they speak every day. She answers all the office phone calls, arranges all the meetings and captures actions and responds appropriately to emails. When he is in meetings, they text. When they need to compare notes and chat about logistics, they instant message. No office overheads. Both people work at home, have less travel time. The clients get better service than they would have before.

Check with your friends. You may be surprised how adoption of Internet technologies is enabling new ways of living, learning and working.

All of which means that the use of Internet and other digital technologies is now ‘normal’. This has implications for its penetration into our lives and culture - and for the products and services we rely on.

Technology – as driver and enabler

Not long ago, it was possible to understand the worldwide web as one very large interlinked ‘hypertext’ document. Static (unchanging) web pages sat on servers and were made available to anyone who pointed a browser at a particular website. Links within the pages allowed you to navigate around a website and be linked off to other websites.

Simple pieces of functionality were then added, allowing for some processing of information and some limited restriction of navigational choices dependent on context. However, the (scripting) technology for this was clunky and often ‘hand-knitted’, being coded and recoded on a case-by-case basis for each web site.

Once organisations had commissioned (and programmers had programmed) the same thing several times, they realised that it would be worthwhile to create software ‘applications’ which could do the same things in multiple projects, performing multiple services for multiple clients. Registration and password systems are examples, as are credit card payments. So, the development of applications specific to the web was born. In parallel with this, search engines were born. At their
core, they had ‘spiders’ which crawled around following links on web pages and indexed what they found. Above this was a ‘presentation’ layer which enabled people to submit queries, review results and browse.

Other than search engines, one class of web application which grew up was the content management system. This enabled the owners of web sites to manage content, the way it was presented to users and their ways of navigating through it without having to do programming themselves.

Another was the portal, which pulled together multiple bits of information out of multiple systems and databases, and presented it in a way that was ‘themed’ and organised according to users, rather than according to where the content or individual system resided.

The amount of web content that is not ‘flat’ and static has increased rapidly as people learn to craft content management systems, portals and databases with web ‘front-ends’ to the needs of users. These dynamic pages, returned in response to submitted queries, are part of what is known as the ‘deep web’ (defined as pages which cannot be indexed by traditional search engines). The content has become ‘active’ or ‘intelligent’, delivering to users what they need, when and how they need it. Indeed, even links can now be more dynamic – RSS (really simple syndication) feeds do not link to pages but rather subscribe to the information contained on them and are updated every time that information changes. The links are live -and therefore much stronger than historical links.

Finally, the concept of linking has been superseded in many cases by embedding or ‘mash ups’. Have you noticed the Google search boxes on other people’s websites? When you click, details of your query are sent off to Google and it returns the answer via the hosting website – in brand, in context. Geo-spatial services - like those from Multimap, Google, and MSN - can all be ‘called from’ within other services and have their results embedded within the site you are using.
Google maps

As an example, Transport for London now provides customisable buttons and pieces of code so that you can (as a non-technical user) embed within your site searches for routes to your offices. And this is enabled in many cases by both the concept of and technology underpinning ‘web services’ – queries and commands and results (rather than just web pages) sent over web/Internet protocols, so that you are using not just the storage power of multiple machines but also the distributed provision of specialist services.
Enabling ‘Martini access’ – anywhere, anytime

Ubiquity has now been enabled by always-on home broadband and always-on mobile connections to mobile devices. This is now both affordable and available through the substantial investment in digital exchanges and new-generation mobile and wireless networks and the massive competition in these markets.

Increased computing power of desktops, laptops and mobiles - coupled with plummeting costs of storage and vast increases in end-to-end bandwidth and quality of service across the patchwork of networks that make up the Internet - has resulted in moving image media (video, film), other time-based media (radio, spoken word, music) and highly interactive and immersive media (games, animations) becoming the norm.
Social use of and attitudes to new media

Thus in the development of the web, the analogy of the book broke. The catalogue is no longer fixed, because the content is dynamic. What were people buying when they read books and went to the library - knowledge, experience, opinion, escapism? Or the chance to disagree with someone, or try out expressing ideas that are only half-formed?

Email has to a large extent replaced the letter, the memo and the fax. When did you last send or receive a fax – other than for a contract? Instant messaging (with Yahoo, MSN et al) substituted at first the brief telephone conversation in professional situations, but now can be combined with voice, or file sharing or workspaces – great for drafting documents, sharing references, especially when there are non-native language speakers.

Text messaging has reinvented the Victorian invitation to tea sent in the morning that arrived in the afternoon. We often don’t call people about trivial arrangements – preferring to send them a text when we think of it and let them respond in their own time.

<table>
<thead>
<tr>
<th>Societal trends</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Death of the audience:</strong></td>
</tr>
<tr>
<td>“The idea of the audience is out of date. We all take pictures, with our cameras, with our phones… [We have all] changed into producers or co-producers of our own ‘moving image’ content.”</td>
</tr>
<tr>
<td><strong>Transnational activitism:</strong></td>
</tr>
<tr>
<td>“…never again will WTO or World Bank officials be able to assume that their decisions can be made outside the glare of publicity or that global neoliberalism is everyone’s ‘common sense’.”</td>
</tr>
<tr>
<td><strong>Reproducibility in culture, art and media:</strong></td>
</tr>
<tr>
<td>“…no other single factor has influenced the emergence of the new avant-garde art as much as technology…it is precisely this mechanical reproducibility which has radically changed the nature of art in the 20th century”</td>
</tr>
<tr>
<td><strong>Urban anxiety:</strong></td>
</tr>
<tr>
<td>“Urban anxiety is part of our culture. Psychologists… have discovered the importance of what they call ‘situated understanding’ – a clear mental picture of the artificial environment, which contributes to one’s mental health”</td>
</tr>
</tbody>
</table>
Music-sharing services (such as LastFM and Pandora) are about finding like-minded people; sharing your likes and dislikes; expressing your identity; being part of a group. Youth use of such services online, together with the audience fragmentation caused by multi-channel digital TV, means that we have fewer shared experiences as a nation. As families, we simply don’t all watch the same TV programmes as we used to not so long ago. Indeed, we may have more in common (and more to talk about) with the people we talk to online than the people with whom we work or our relatives.

Trading platforms (such as Amazon, eBay, betfair) are substituting for street markets, second hand book stalls, bookshops, book clubs, betting shops, casinos. So are we missing out on social contact with our fellow humans? Not necessarily. Maybe we’re buying the bog standard stuff online to give ourselves more time to go to organic farmers markets.

Betfair homepage
Much new media is interactive – we get to do something. But this has moved beyond voting – beyond affecting outcomes (not that we should belittle the 8 million who voted on the X-Factor). With the means to articulate, capture and record in the hands of the masses, co-production is becoming the norm – with many no longer wanting just to absorb pre-packaged media: less of the being ‘done to’ – more, exercising the desire to tell our own stories, share our own ideas.

So the social impact of digital media and Internet technologies should not be underestimated. We now have a series of social environments which are online, through which people can share interests, meet partners, find flatmates, discuss issues of the day, play games and write things together. And this is new.

**Impact on financial services**

So what does this mean for financial services?

Increased personalisation of services requires us to give up more information about our buying habits. The recent report published by the UK’s Information Commissioner’s Office highlights some of the issues over privacy and equality that flow from this. David Murakami Wood, from the Surveillance Studies Network which prepared the conference report, said: “With technologies that are large-scale, taken for granted and often invisible, surveillance is increasingly everywhere. We describe techniques such as automatic classification and risk-based profiling as “social sorting” which can create real problems for individuals - social exclusion, discrimination and a negative impact on their life chances.”

Equally, as Nick Negroponte has pointed out:

“In the post-information age, we often have an audience the size of one. Everything is made to order, and information is extremely personalised… A widely held assumption is that individualisation is the extrapolation of narrowcasting… In being digital I am me, not a statistical subset. Me includes information and events that have no demographic or statistical meaning.”

High-profile corporate scandals have resulted in significant tightening of governance and compliance regimes in both the US and elsewhere. Whilst this may have added to the complexity of transactions within and between financial services organisations, our customers, regulators and wider stakeholders are ever more watchful for lapses in standards or departures from our organisations’ stated values.

Transnational sharing of information amongst the general public means that it is very hard to say one thing publicly and do another privately. There is no ‘privately’. And
with global awareness of child labour, environmental impact and the needs of developing countries, a company’s position on these issues cannot be relegated to the marketing department.

And it isn’t just b2c that is affected. The customers who work in business clients are people, too. In many cases, their experience of ICT at home for hobbies and family (especially with children) may be more sophisticated that the IT they use at work – and to interface with you and your services. The sharing of knowledge and collaborative working across the supply chain isn’t just about ‘straight through procurement’ – it’s also about a community of colleagues upping their collective intelligence.

Word-of-mouth marketing is not new, and there is an increasing body of knowledge about what works and what doesn’t. However, digital media have brought new aspects to this discipline – with viral marketing via email, and online community sites which allow self-organising groups of individuals with similar interests to share information on a day to day basis as part of their everyday lives. With retail financial services increasingly commoditised, the design of the overall customer experience is becoming more critical. Other online retailers are using knowledge network and community-building approaches – can financial services afford to be far behind. And if we are relying on our peers, rather than certified experts, to give us recommendations, what implications does this have for the regulation of the ‘place’ (albeit virtual) where this is happening?

We have already seen online delivery of simpler financial and insurance products; we can be sure that self-service around more complex and high-value products will come. But will it work? Will those who believe that “self-service is no service” prevail? Or will we trust a comprehensive ‘expert system’ to understand our requirements and match them to a plethora of products?

The expert versus the group

In its predictions for IFAs for the next five years, the FSA acknowledges the role of the internet in terms of providing information. But it fails to see the potential impact of shared expertise on the role of an IFA. The report states: “There will be no step change by 2011…the Internet will increasingly be used for information gathering, but this pushes consumers to seek advice to make decisions”. The expectation is that web-based aggregating companies will continue to be the new intermediaries, collecting, comparing and rating banking products and services. That is not ambitious enough. We would instead argue that Internet 2.0 applications can offer far more than just aggregation – they can offer recommendations.
Financial products are complicated, hard to compare and offered in vast numbers. The IFA site, www.unbiased.co.uk, claims that there are 30,000 to choose from, and suggests that only experienced advisors can possibly pick the right option for each individual. But is that true? Can IFAs really be expected to keep on top of 30,000 options, as well as the benefits of each, charges, flexibility, service and financial strength? A recent survey by Which? found that fewer than a third of advisers performed satisfactorily - with ‘tied’ advisers faring worst. A taxonomy that is constantly updated could compare and clump the 30,000 options into understandable groups, relevant to people with different profiles. Given critical mass, it would be as worthwhile for providers to offer discounts through this channel as well as through IFAs. There are two applications needed – ‘folksonomies’ and pattern matching recommendation engines.

unbiased.co.uk

Collaborative categorisation sites, like Flickr for photos, use folksonomies. These use freely chosen keywords, tags, which allows for multiple overlapping associations rather than rigid categories. On Flickr, a photo of a kitten might be tagged both as ‘kitten’ and ‘cute’ – allowing for retrieval along natural axes generated by user activity. Tagging financial products along multiple lines would allow the evolution of a folksonomy from which people can find and compare products using natural language.
As for pattern matching, much the same way that Amazon tracks your purchasing habits and sends you ads for books you might be interested in, our (hypothetical) system could provide recommendations based on answers to particular questions about your profile. The data generated is then subject to feedback - allowing users to rank or comment on recommendations or content. And the ‘library’ of options behind this is constantly updated by people adding to and tagging the folksonomy.

But are there really enough consumers with awareness and understanding of financial products to start (or contribute to) an Internet 2.0 recommendation engine?

The beauty of Internet 2.0 is that no one person has to know it all. The expertise is collective. And the whole is more than the sum of the parts. Time and again, successful Internet companies have been those that have made data public and allowed people to build on it. Wikipedia (a user-generated and edited online encyclopaedia), for example, gave up central editorial control in return for real time updating and breadth. Indeed, the wealth of responses on financial forums (such as themoneysavingexpert.com) suggests that there are engaged consumers out there with experience in financial services willing to share their knowledge.

Money saving expert
So if everyone can get financial advice for free, how can anyone make any money out of it?

In a world of collective expertise, an expert in the traditional sense becomes a valued personal guide rather than a privileged holder of information. The medical world provides an analogy. People go to their doctor now armed with information from the internet and theories about what’s wrong with them. The role of the doctor is to ask the right questions to establish whether the patient’s self diagnosis is correct or whether in fact another conclusion is more appropriate.

Armed with financial recommendations from social networks, the role of the IFA will be to help people understand their current financial situation and future goals - and then to fit a financial plan around this. People are still busy, still want things simplified and still want advice from someone whom they trust, someone with whom financial stuff becomes fun and interesting. Jon Ivinson, former president of the British Computer Society and Chairman of the UNESCO UK Commission Information Society Working Group, noted: “My IFA is an extension of social services – he needs to understand my life aims and objectives. Whatever communications technologies we use need to be able to support this kind of working together.”

The money-making will go where the value is perceived by the customer. The skills that differentiate those who are successful in this context are the softer ones; offering reassurance, confidence or a sense of well-being. What makes for a successful IFA in the transparent world of Internet 2.0 may, therefore, look very different to the historical criteria for success.

Mass personalisation of retail financial products

Retail financial services are already seeing the impact of increasing access to information. Transparency is driving comparison shopping and, in some instances, price competition (such as rates on savings accounts). The more access to information consumers have, the more discerning they become - and the more careful suppliers have to be in the way they market their products. Accepting that comparison shopping is inevitable and making products as transparent as possible will leave firms less open to criticism. Continuing to target products at specific types of consumer will also help retail banks to compete effectively. As an expert in financial services change observes “the issue of risk is critical – which goes back to the quality of insight into the customer, including the linkage of your knowledge of their usage of your products”.

This need to differentiate and to tailor products is equally driven by consumers’ increasing expectations. With recommendation engines on sites from Amazon to Expedia and applications that allow us to set our own preferences (such as Topix.net) we expect personalisation. We expect this personalisation to be driven, not just by our own set preferences, but also by pattern-matching and usage. For pattern-matching, Bloglines offers users other content feeds that they might be interested in, based on the feeds already chosen. Google’s Alerts get more ‘intelligent’ the more you use them: you set the topic of interest, but Google tracks what you click on out of the links it sends - and then feeds more links like that in the future. Your news evolves to suit your interests without you needing to tell it what these are.

But personalisation can be taken a step further - a step which retail financial services providers need to take into account. There are plans afoot to link contact information (from email, instant messaging, social networks) with commercial and shopping comparison sites. This would mean that, when you visit a site, you can see which people in your social groups have bought certain products or given good feedback on certain companies. Given that these are people you trust, rather than anonymous forum users, the impact on your purchase decision is potentially huge. Imagine visiting a comparison site and finding that four of your closest friends all have a credit card with the same company, and have rated that company as excellent. Even if that company is smaller than others or seems to offer slightly less good rates, you’d still be tempted to go with it. They’ve chosen it and rate it highly, and you trust their judgment. You’re sold, and with minimal reference to the advertising of the company itself.

Marcel Kornblum, of Marcel &c, notes that another implication is that these recommendation engines can suggest products and services that the user may be unaware of or may have overlooked. Ma.gnolia, for example, uses the social networking part of the site to show you which other users have bookmarked the same link as you. You can then browse their other links, finding things that you would otherwise have missed. This means that word-of-mouth has a new power to reveal sources that cannot compete in traditional advertising channels.

---

**Bloglines** — users can create a personalised news page tailored to their interests and location (e.g. for weather reports) from their index of internet content feeds including articles, blogs, images and audio. Bloglines can also recommend other sources that users might be interested in based on their existing picks. It’s free, allows sharing of content and allows users to annotate and write on their personalised blog.

**Topix.net** was founded in 2002 with a mission to provide users the ability to quickly and easily find targeted news on the Internet. With so much news from so many sources, categorising each story consistently, efficiently and accurately is very difficult. Topix.net uses artificial intelligence algorithms that monitor breaking news from over 10,000 sources, 24 hours a day.
Investment & ethics

Internet 2.0 is opening up our behavioural profile to the masses. It means that more details about our life and how we spend time or money are captured online, and are visible to friends or colleagues. This may well reinforce socially responsible behaviour.

We can see examples both on and offline. Offline examples include sales of the Toyota Prius and uptake of Amex’s red card. £25bn was spent last year on ethical goods and services in the UK. Online, there are web 2.0 sites which facilitate shared commitments to ethical objectives. Pledgebank, for example, facilitates collaboration between people to achieve ethical or societal goals. All of this suggests that financial, purchase and life decisions will be increasingly influenced by ethical considerations.

Do ethics change with technology? Certainly, technology brings new ethical dilemmas – vide the issues surrounding bioethics. As we have noted, social norms are also shifted by technology. Whilst many married men and women may have thought about having affairs, online flirtations are much easier and safer. Does their long-distance or anonymous nature change their ethical status? Maybe not. But it does change the extent to which they are engaged in and socially acceptable.

It could be argued that the Internet, far from turning the whole world into a village, turns it into a city – where people are anonymous and socially disconnected. And yet we must also acknowledge that the Internet enables greater transparency of information, faster exchange and mechanisms for sharing that are genuinely novel. Transparency and openness are pillars that underpin good governance and democracy. By enabling this on a global scale, have we not created an engine for better governance in both public administrations and corporations?

Going to a market stall down the road, we have no ability (other than hearsay) to judge the moral standing of a vendor. And yet eBay and its ilk explicitly build in ‘feedback’ mechanisms to record and manage ‘consumer confidence’ in each vendor. As a greater proportion of sales move online, won’t such transparency be a force for better commercial ethics?

Whilst cyber crime and misuse of ICT are widespread (see UNESCO) so is the discussion and monitoring of ethics in the modern and hyperconnected world.

On balance, we believe that the Internet’s role as a many-to-many communication medium increases transparency and openness - and that these generate self-regulatory mechanisms to mould ethical behaviour. Business, trade and vocational
activities at large – including the financial services sector – are net beneficiaries of this. Hence our upbeat – optimistic even – evaluation.

However, there may be a catch. Transparency of personal data can be seen as loss of privacy. Governments and corporations will be tempted to abuse the information they store, perhaps with clever arguments about protecting us or delivering additional value. We must therefore seek to strengthen – and to make transnationally enforceable - regulation of personal data interchange. We need to ensure that we are aware of how information about us is stored, used and shared - and we must be able to evaluate the pros and cons each time ‘with-permit’ information about us is collected.

But what does this mean for financial services?

Socially responsible funds have been around for some time. As of June 2005, there were 375 ‘socially responsible’ funds available to investors in Europe, 6% more than in the previous year. From the second quarter of 2004 to the same period in 2005, managed ‘ethical’ assets grew 27% from €19 billion to €24 billion. Ethical funds in the UK are now thought to total more than £5bn. These funds are increasingly
attracting higher quality managers and are expected to start to make competitive returns\(^\text{11}\). Ethical investment adviser, Investing for Good, has even announced plans to open an online social investment market similar to a mainstream stock market. The scheme will allow individual and institutional investors to access information and build their own online portfolios in exchange for an annual membership fee\(^\text{12,13}\).

With the growing transparency imposed by the internet, this trend towards investing ethically is expected to continue. One could even envisage a situation where behaving ‘ethically’, in terms of spending, becomes an obligation. What role might financial institutions play in this case?

Given increasing use of cards to pay for everything, tracking the environmental footprint of an individual’s purchases is not as hard as it might sound. Indeed, there is already a move to get credit card companies involved in monitoring the ‘ethics’ of purchases – notably when it comes to on-line gambling and certain types of pornography. In terms of carbon footprints, a bank could even calculate your total environmental impact at the end of each month, based on your travel, petrol purchased, origins of the food you’ve bought (and therefore distance transported), and the environmental impact of your clothes manufacturer. It could then send you a statement indicating the amount owed to become ‘environmentally neutral’.

Prosper, America’s first people-to-people lending marketplace, was created to make consumer lending more financially and socially rewarding.

The way Prosper works is intuitive to people who have used eBay – though, instead of listing and bidding on items, people list and bid on loans using Prosper’s online auction platform. People who want to lend set the minimum interest rate they are willing to earn, and bid in increments of $50 to $25,000 on loan listings they select. People who want to borrow create loan listings for up to $25,000 and set the maximum rate they are willing to pay. Then, the auction begins as people who lend bid down the interest rate. Once the auction ends, Prosper takes the bids with the lowest rates and combines them into one simple loan. Prosper handles all loan administration, including loan repayment and collections on behalf of the matched borrower and lender.

Charles Moore, Head of Innovation, Reuters: “I would really like to see the social asset management model take off in developing and emerging economies – giving people the tools to create value and thereby money. For example, distributing to rural farmers price information for commodities improves their individual negotiating power, and can cut out some of the middlemen.”
Prosper homepage

In addition to criteria commonly used by institutional lenders, such as credit scores, people who lend can consider borrowers’ group affiliations. Groups on Prosper are critical to bringing people together for the common goal of borrowing at better rates. Groups earn reputations according to their members’ repayment records. Groups with successful repayment histories should attract more lenders, offering lower rates. Similar groups have been seen in dairy farmers negotiating better deals with large supermarkets by clubbing together, or in high mileage drivers collaborating through a company called Pipeline to qualify for a fleet-style lower price per litre for fuel.14
But is there really a market for social lending? A study by the Social Futures Observatory found that 74% of consumers would consider borrowing online through a social lending community rather than a high street bank. The author of the study, Prof Michael Hulme, believes social lending offers a more personalised experience to consumers: “For most people, banking does not provide any form of rewarding or valued experience, it is simply a necessity. In contrast, the community sites we looked at appeared to offer a much deeper appreciation of the individual far beyond the actual transaction.” And the rates are impressively competitive. Zopa.com, an online lending community similar to Prosper, claims that eight out of 10 of people who have borrowed on the site secured a lower rate of interest than that offered by high street banks.

Zopa homepage
Ethics and privacy are obviously key issues here.

The idea of tracking behaviour to assess a group or individual risk profile is an aspect of web 2.0 that raises ethical concerns. The more data the actuaries have the better able they are to calculate a risk profile - and to amend premiums accordingly. Pruhealth is already doing this – tracking gym visits, health-related forum visits/posts, healthy recipe downloads and so on. The tricky bit is to ensure that this does not lead to discrimination against those with a high risk profile.

The transparency of this detailed personal data is also a concern in terms of privacy. With more sophisticated tracking through web 2.0 applications, there are opportunities for tracking a range of behaviours. Companies will have to convince customers that they want to share this data - though financial incentives are strong motivators for giving up some personal information. Building up good feedback is like a personal investment - and it ensures good behaviour (for the most part). Premiums could vary depending on our behaviour. Transparency on calculations made by our insurer could be translated into hints and tips on changing our lifestyle or behaviour to reduce our premiums. Who would have thought your insurance company would be the one to help you give up smoking to reduce your life insurance premium…?

Reducing the barriers to participation in the equity market

Internet 2.0 could democratise internet advice by harnessing collective expertise.

There are already applications that allow people to invest online in a relatively inexpensive and user-friendly environment, such as etrade.com. Fidelity International’s ShareNetwork for example, although already one of the cheapest share-dealing networks on the market, is waiving the £5 monthly fee for new joiners\(^\text{16}\). Every trade, regardless of size or frequency, costs the user just £9. In addition, users automatically become members of Crest, the online share registration and settlement service.
According to Comscore’s August 2006 figures, visits to online trading sites grew by 10% from July to August to 12.4 million visitors. The top three sites are all seeing significant growth: Fidelity Investments with 3.7 million visitors (up 8 percent), Sharebuilder.com with 2.3 million visitors (up 112 percent) and Scottrade Sites with 1.7 million visitors (up 20 percent).
Sharebuilder
Sites like etrade and Fidelity offer not just transactional assistance, but also advice. The advice is generally controlled by editors, funded by advertising on the site. On BigCharts, various advisors offer yearly subscriptions to newsletters for as little as $99. But there are clear opportunities for user-generated recommendations, and for tools which track the ‘flow’ of interest around a particular stock based on page views and other metrics. If these recommendations are paired with real-time information on market movements from screen-based online trading and research systems, users are in a good position to make judgments. SquawkLive for example, examines over 8,500 stocks every minute of every trading day, including before and after market hours.
Big Charts
New Internet 2.0 sites - like SocialPicks, Bullpoo, Gradr, Stocktickr and Digstock - are taking this one step further, harnessing the power of collective expertise. On SocialPicks for example, users enter their stock trading activities and thoughts, then rate other users. Reputations are built according to a user’s percentage of winning picks, quality of insights (as judged by the community) and number of trades. This avoids the problem of online forums where there is no mechanism for discerning the veracity of advice. (Indeed the site is developing technology to track and report on suspicious behaviour as well.) It also allows people to share different insights into the same industry. You might know something about political movements that may impact on key players. Another person could comment on social trends or technological innovations that impact on the market. A picture emerges against which sophisticated market predictions and informed investment decisions can be made.
Although these sites are relatively new, the idea has been successful in other fields. Collaborative filtering sites (like Digg for news and Last FM for music) enable groups to collect knowledge and filter by quality and relevance. The idea of rating reviewers according to the quality of their reviews has existed on Amazon and other sites for a while. Marko Balabanovic of Lastminute.com notes: “Social recommendation seems to work well in services such as LastFM. The original wave of these services wanted to recommend things to people - without any explanation. But the explaining why gives people more confidence. And the specific relevance of seeing who it comes from – and why they are similar to you - generates more trust.”

In Korea, reviewers are not only rated but also paid; there’s no reason why top recommenders on a trading site shouldn’t share in the profits when an investment is made as a result of their recommendation. A Korean company called Aladdin has created a tool that bloggers can add to their blog so that when readers click through from the review to purchase the book the blogger is paid a small fee (essentially affiliate marketing). Charles Moore, Head of Innovation at Reuters, observed: “We will need new models for monetising the IP of participants in the blurring between traditional and social asset management. If the advice from a bright young thing results in portfolio performance outperforming other managers – the environment needs to find a way of rewarding them. This is the democratisation of Wall Street – anyone with the knowledge, intelligence and tools to participate can demonstrate value.”

Such an online trading system could even recognise people at log in and inform them which shares they might be interested in based on past buying behaviour, stated preferences and what others in their social network have been buying. Amazon meets the equity market.
Betfair has shown that there are people out there with significant skill in judging odds and making bets. By April 2006, its monthly active customers stood at 150,000. It handles over five million bets per day, accounts for over two billion page impressions a week and more than £2,000 a minute is deposited onto the site. Equally, with the hype around music online, sites are offering ways to invest in a band and reap some of the rewards if the band does well. One such site, Amie Street, allows people to purchase individual tracks at prices set according to demand – starting at free or for pennies. Users who recommend songs in the system get to share the revenue from sales. With individuals willing to invest in ‘stocks’ in something as subjective and unquantifiable as music, what are the possibilities for informed investments supported by data and recommendations?

Just as investments in music or virtual worlds (a large island on SecondLife will set you back US$5,000, plus monthly land maintenance fees of US$780) are being made for entertainment, investments in the stock market could also become entertainment for the masses. With the old comparison between the stock market and ‘gambling’, and the exponential growth seen in online gambling, is ‘Investfair’ or ‘Fantasy Hedge Fund’ really so far away?

A parallel economy?

Heard of MMORGS? You soon will. The growth of ubiquitous access to broadband and advances in internet software are turning fantasy worlds into online markets. So-called massively multiplayer online gaming services (MMORGS) are becoming part of the leisure time not just of internet ‘geeks’. World of Warcraft, the most popular, has around 3.5 million players each paying a subscription of nearly $15 per month. Other MMORGS, such as Habbo Hotels (which claims to have 6 million users each month, mostly teenagers), do not charge subscription but users purchase virtual currency using credit cards or premium rate SMS. In 2005, Sulake, which runs Habbo Hotels, reported annual revenue of €15 million, placing it eighth on the Deloitte Technology Fast 500 EMEA list fastest growing companies. Investment in Habbo Hotels has come from notable names including Benchmark Capital and 3i.

So the companies running MMORGS are making money and might make interesting investment targets. But what else do these virtual economies mean for financial services?

More recent MMORGS do not just allow people to fight and interact but also to buy, build and trade. And, earnings are not just virtual; in some MMORGS they can be converted into real world revenue. The best example of this is Linden Labs’ world, SecondLife. Money earned in the game can be converted into dollars at various currency exchanges in the game, as well as through third party sites. In January 2006, Second Life residents exchanged $1,384,752,765 in-game ‘Linden’ dollars, or over $5 million.
Digg: Digg is a site for user-generated news articles with almost half a million users and over 2,000 contributors. News stories and websites are submitted by users, and then promoted to the front page through a user-based ranking system (as opposed to the classic hierarchical process of editorial control). In this way, it combines social bookmarking, blogging and syndicated editorial control.

Last FM: Last FM is an internet radio station and music recommendation system that builds a profile of each user’s musical taste, displaying his or her top songs and artists on a customisable web page. Recommendations are calculated using a collaborative filtering algorithm so users can browse a list of artists not listed on their page but which appear on the pages of those with similar musical taste.

Second Life
But what are they buying or selling? Much of the value is created by players investing their own time in the game. Philip Evans at Boston Consulting Group estimates that Linden Lab has so far invested about $25m into the Second Life environment. However, because “about 90% of the content is created by the players”, this works out at a total ‘investment’ of around $250m. It is estimated that it would take a paid 4,100-person software team to generate the content users do, who spend one-quarter of their 23,000 hours per day creating new objects – from people to clothes to buildings. One Project Entropia player paid $26,500 for an island in the game’s virtual world in 2004, and has already made his money back by selling hunting and mining rights to other players.

A host of real world suppliers are building up around these virtual worlds. New sweat shops have emerged in China, spending time building up virtual characters, known as avatars, to sell on eBay to people who do not have the time or experience to create their own character. According to a paper by 3i, trade in virtual items is now worth more than $100 million each year. According to Edward Castronova, associate professor of telecommunications at Indiana University, “by ‘working’ in one game, EverQuest, people can generate about $3.50 per hour creating virtual items and selling the results for real money. This gives a GNP per capita of $2,000 in 2004, higher than that of India or China.”

With the evolution of these worlds, it is not yet clear whether in-game economies will mirror or diverge from real world economies. One would expect a correlation with consumer spending. But the fact that people from multiple countries take part in each virtual world means there is an inherent hedging effect. Consumer spending dips in one market might be balanced by rises in another. There is, therefore, a significant opportunity for balancing risk in other investments with investments in companies that run virtual worlds, suppliers to those worlds or within virtual worlds themselves.

An Internet 2.0 corporate governance model?

There are at least three main implications of Internet 2.0 for governance:

- Corporate ethical failures are harder to hide in an age of free information and user-generated journalism - and when they occur, they can have a far greater impact on consumer decision making
- The potential for harnessing the collective expertise of the whole organisation for some aspect of decision-making challenges the classic top-down, hierarchical management philosophy
• Internet 2.0 offers significant opportunities for a dialogue with consumers (via corporate blogs and the like) so that it is possible to co-design services and products with the people who will use them.

Social networking facilitates shareholder, or public, activism. Cast your mind back to the Nestlé powdered milk saga in the 1990s. Student unions got together and banned all Nestlé products from campuses up and down the UK. What made this possible was that networks for communicating the message were already in place, and those being communicated to were receptive. The analogy to Internet 2.0 social networks is clear. How much more confident would you be in pushing a company for compensation if you’ve seen on forums that others have experienced similar problems with a product? In much the same way, an individual may only own a tiny percentage of a company and not be able to have an impact alone; but if enough of these individuals get together through a forum, their impact at an AGM could be significant. Companies will need to focus more than ever on CSR to avoid carefully coordinated, geographically dispersed shareholder activism.

Copying in everyone related to a decision in an email has become standard practice. Forums have become ubiquitous on intranets to allow people to share knowledge.

Internet 2.0 allows the evolution of a decision through collaborative editing on applications such as wikis. The most well known is Wikipedia, a collaboratively created and edited encyclopedia. With their easy-to-use editorial systems, wikis act as knowledge bases in a more reliable sense than forums do.

Wiki can also help facilitate internal collaboration, allow managers to identify and empower communities, establish thought leaders and relentlessly enhance data and knowledge share. Charles Jennings, Global Head of Learning for Reuters notes: “The people who are entering the workforce these days are much more likely to be natural collaborators – and expect to reach outside the organisation on a regular basis – they expect the organisation to be extensible, because they have grown up with drawing on resources from ‘all over’ (as compared to just using the library). They are broad and shallow operators.”

Equally, mash-ups (whereby data is sourced and combined from a variety of internal and external sources) help with decision-making to combine, for example, data from marketing teams and external sources. Thus, Zimbra offers a messaging collaboration system allowing mash-ups within email, integrating salesforce data, Fedex tracking numbers, Yahoo! maps etc.
Internet 2.0 offers significant opportunities for creating dialogue with consumers. This is an extension of executives knowing what ‘people in the City’ are saying about their company. They get to witness conversations one level down as well. And most blogs allow user commenting, which provides direct feedback. By starting a dialogue through these channels, companies can get closer to consumers – and can understand their ever-changing needs.

Blogging is increasingly being used as a business tool for this reason. Webcameron is possibly the highest profile recent example of traditional top-down communication attempting to be more on a level with consumers. Reuters has a blog for its journalists, initiating a two-way contact rather than just ‘communicating the news’. First Direct and Nationwide Building Society have started corporate blogs with impressive impact on customer engagement and loyalty. Tesco is continually moving into new markets, driven by a dialogue with its customers about what they trust it to offer next. Clinton Cards, through a web 2.0 company called Communispace, asks customers to design its new products. Its customer communities come up with ideas for new cards faster, and with more potential for success, than its own internal R&D team.
Webcameron
As noted by an expert in financial services change programmes: “Web 2.0 magnifies the strengths of non-traditional providers - who have already stolen the march on and gained market share from the more established players. These players can leverage more from folksonomies and networked communities because they have a better understanding of brand, innovate faster, have an ‘execution’ mentality and acute awareness of customer experience 24/7. They are, however, dragging their partners – such as RBS and Bank of Scotland – with them.”
Apple allows its users to interact and solve their own customer service queries through the Apple forum. People are not being incentivised to help others; the sense of achievement and pride is reward enough in itself. (Indeed on Google Answers, even after the answer has been given and paid for, other people freely add their own comments to dispute or clarify the answer). And Apple wins on two fronts: users are engaged and the costs of IT support are reduced.

So what next?

The key success stories of Web 2.0 are companies that embrace the power of the Internet to harness collective intelligence. These companies are enablers of a context that allows user activity to happen. By capturing the network effects of this usage they create value that is hard to replicate leading to a reduced threat from substitutes. Think about how you can create an architecture of participation, encouraging customers to extend your data to sustain or create a competitive advantage. Cooperation and democratisation, not control, are the buzz words of Web 2.0.

This applies also in terms of dialogue with your staff and customers. Use Internet 2.0 concepts and technologies to harness their ideas to drive growth, but also to monitor feedback on your activities. Market backlashes against unethical practices will be harder, faster and broader in the current climate than ever before.

Consider what new opportunities exist for you in terms of mass small-value investments and ethical living. Learn from the perpetual betas of Web 2.0 – products or services can be added and tested in real-time, and can be evolved as you see how they are being used.

Personalisation and intangible ‘human’ value are the key differentiators in a world of widespread access to information and advice from the masses. Consider what intangibles people are buying when they buy your products, and what human elements add value over and above the expertise you offer. Moreover, keep an eye on how customers want to interact with your company. Do they want a MySpace page to ‘meet’ their personal adviser? Be mindful of changes to media around your products, such as podcasts or comparison websites, which may indicate how users want to interact.
Things to do today:

• Visit PodcastAlley.com and download a podcast to listen to on your computer or iPod.

• Go to wikipedia.com and check a definition for something you know lots about — you’ll be surprised about how detailed, accurate and up to date the information is.

• Check out MySpace.com, YouTube.com and SecondLife.com to understand what all the hype is about and form your own view.

• Set up a news alert service on Google at www.google.com/alerts or, if you’re feeling confident, a page of your own personalised RSS feeds using the open source BlogBridge.com tool.

Podcast alley
MySpace homepage
YouTube homepage
BlogBridge homepage

Things to do tomorrow

- Talk to peers and colleagues about the Web 2.0 sites they use.

- Look at your company’s website (and those of a few competitors) and see how they look in light of this paper.
• Go to wikipedia.com and check if there is an entry for your company, your industry or your kind of products. See what your company policy is on updating your company entry.

• Register for LinkedIn, if you haven’t already. If you have, update your profile, write someone a reference and try to use your network to get work or do some market research.

• Ask your marketing and strategy/innovation people what their plans are for Web 2.0.

Linked in homepage


4 In the bubble: Designing in a complex world, John Thackara, MIT Press


7 The future of advice, a report for the FSA, May 2006, KPMG & FSA

8 http://www.unesco.org/cgi-bin/webworld/portal_observatory/cgipage.csi?u=Enabling_Environment%2FCyber-Crime_and_Misuse_of_ICT%2Findex.shtml;id=1

9 “Financial Advice - why the right advice is important”, Moneyextra.com

10 “Going Green with Embarrassment”, Guardian Unlimited, 30 September 2006


12 ibid

13 “Going Green with Embarrassment”, op cit

14 “Ethical enterprises to get online forum for trading”, 5 July 2006, Third Sector

15 http://www.pipelinecard.org/

16 “Internet social lending ‘may threaten banks”, e-consultancy news, November 2006

17 “Online trading set to become even cheaper”, What Investment, 28 September 2006

18 Betfair Annual Report 2006

19 ibid

20 Real Profit In a Virtual World, 3i insight paper


23 http://www.businessweek.com/magazine/content/06_18/b3982001.htm
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Details</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.</td>
<td>“Banking Banana Skins: 1997”: A further survey showing how bankers</td>
<td>might slip up over the next two or three years. April 1997</td>
<td>£25/$40</td>
</tr>
<tr>
<td>27.</td>
<td>“Foreign currency exotic option”: A trading simulator for innovation</td>
<td>dealers in foreign currency (with disc). Winner of the 1997 ISMA/CSFI</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>Prize for financial innovation. By Stavros Pavlou. September 1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>“Call in the red braces brigade... The case for electricity</td>
<td>derivatives”: Why the UK needs an electricity derivatives market, and</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>how it can be achieved. By Ronan Palmer and Anthony White. November</td>
<td>1997</td>
<td></td>
</tr>
<tr>
<td></td>
<td>off the disaster? A financial thriller based on a simulation</td>
<td>conducted by the CSFI, with Euromoney and PA Consulting Group, to test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>conducted by the CSFI, with Euromoney and PA Consulting Group, to</td>
<td>the international system of banking regulation. By David Shirreff.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>test the international system of banking regulation. By David</td>
<td>Shirreff. December 1997</td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>“Credit where credit is due: Bringing microfinance into the</td>
<td>mainstream”: Can lending small amounts of money to poor peasants ever</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>be a mainstream business for institutional investors? By Peter</td>
<td>Montagnon. February 1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Montagnon. February 1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>“Emerald City Bank... Banking in 2010”: The future of banking by</td>
<td>eminent bankers, economists and technologists. March 1998. (Only</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>photostat available).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>“Banking Banana Skins: 1998”: The fifth survey of possible shocks</td>
<td>to the system.</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>to the system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>“Mutuality for the 21st Century”: The former Building Societies</td>
<td>Commissioner argues the case for mutuality, and proposes a new</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>Commissioner argues the case for mutuality, and proposes a new</td>
<td>legislative framework to enable it to flourish. By Rosalind Gilmore.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>legislative framework to enable it to flourish. By Rosalind</td>
<td>Gilmore. July 1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The 1998 ISMA/CSFI prizewinning dissertation analyses how government</td>
<td>policies affect stock values in markets in Japan and the Far East. By</td>
<td></td>
</tr>
<tr>
<td></td>
<td>By Nandita Manrakhan. August 1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>combat Internet-related crime. By Rosamund McDougall. September 1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>“The Internet in ten years time: a CSFI survey”: A survey of opinions</td>
<td>about where the Internet is going, what the main obstacles are and who</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>about where the Internet is going, what the main obstacles are and</td>
<td>who the winners/losers are likely to be. November 1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>who the winners/losers are likely to be. November 1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>“Le Prix de l’Euro... Competition between London, Paris and</td>
<td>Frankfurt”: This report sizes up Europe’s leading financial centres</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>Frankfurt”: This report sizes up Europe’s leading financial centres</td>
<td>at the launch of monetary union. February 1999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>at the launch of monetary union. February 1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38.</td>
<td>“Psychology and the City: Applications to trading, dealing and</td>
<td>investment analysis”: A social psychologist looks at irrationality in</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>investment analysis”: A social psychologist looks at irrationality</td>
<td>the financial services sector. By Denis Hilton. April 1999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in the financial services sector. By Denis Hilton. April 1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39.</td>
<td>“Quant &amp; Mammon: Meeting the City’s requirements for post-graduate</td>
<td>research and skills in financial engineering”: A study for the EPSRC</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>research and skills in financial engineering”: A study for the EPSRC</td>
<td>on the supply of and demand for quantitative finance specialists in the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>on the supply of and demand for quantitative finance specialists in</td>
<td>UK, and on potential areas of City/academic collaboration. By David</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the UK, and on potential areas of City/academic collaboration. By</td>
<td>Lascelles. April 1999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>David Lascelles. April 1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td>“A market comparable approach to the pricing of credit default</td>
<td>swaps”: Winner of the 1999 ISMA/CSFI prize for financial innovation. By</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>By Tim Townsend. November 1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>“Europe’s new banks: The non-bank phenomenon”: A report for euro-</td>
<td>FIET on the threat posed by new technology to European banks’</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>FIET on the threat posed by new technology to European banks’</td>
<td>traditional franchise. By David Lascelles. November 1999</td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td>“In and Out: Maximising the benefits/minimising the costs of</td>
<td>(temporary or permanent) non-membership of EMU”: A look at how the</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>(temporary or permanent) non-membership of EMU”: A look at how the</td>
<td>UK can make the best of its ambivalent euro-status. November 1999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UK can make the best of its ambivalent euro-status. November 1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Private Partnership”: By Sir Michael McWilliam, KCMG. March 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td>“Internet Banking: A fragile flower” Pricking the consensus by</td>
<td>asking whether retail banking really is the Internet’s “killer app”.</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>asking whether retail banking really is the Internet’s “killer app”.</td>
<td>By Andrew Hilton. April 2000</td>
<td></td>
</tr>
<tr>
<td>45.</td>
<td>“Banking Banana Skins 2000” The CSFI’s latest survey of what UK</td>
<td>bankers feel are the biggest challenges facing them. June 2000</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>bankers feel are the biggest challenges facing them. June 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.</td>
<td>“IX: Better or just Bigger?” A sceptical look at the proposed</td>
<td>merger between the Deutsche Boerse and the London Stock Exchange By</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>merger between the Deutsche Boerse and the London Stock Exchange By</td>
<td>Andrew Hilton and David Lascelles. August 2000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Andrew Hilton and David Lascelles. August 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47.</td>
<td>“Bridging the equity gap: a new proposal for virtual local equity</td>
<td>markets”: A proposal for local stock exchanges, combining Internet</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>markets”: A proposal for local stock exchanges, combining Internet</td>
<td>technology and community investment. By Tim Mocroft and Keith</td>
<td></td>
</tr>
<tr>
<td></td>
<td>technology and community investment. By Tim Mocroft and Keith</td>
<td>Haarhoff.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Haarhoff.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>David Lascelles. May 2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>“Bumps on the road to Basel: An anthology of views on Basel 2” This</td>
<td>collection of sixteen (very brief) essays offers a range of views on</td>
<td>£25/$40</td>
</tr>
<tr>
<td></td>
<td>collection of sixteen (very brief) essays offers a range of views on</td>
<td>Basel 2. Edited by Andrew Hilton. January 2002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basel 2. Edited by Andrew Hilton. January 2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>bankers are worrying about at the beginning of 2002. Sponsored by</td>
<td>PricewaterhouseCoopers. By David Lascelles. February 2002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PricewaterhouseCoopers. By David Lascelles. February 2002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

53. “Harvesting Technology: Financing technology-based SMEs in the UK” DTI Foresight sponsored report, which examines what has been done (and what will be done) on the financing tech-based SMEs. By Craig Pickering. April 2002 £25/$40


Sponsorship

The CSFI receives general support from many public and private institutions, and that support takes different forms. In 2006 and the first half of 2007, we received unrestricted financial support from:

Accenture
Barclays Group
Citigroup
JPMorgan Chase

Abbey
Aberdeen Asset Management
Alliance & Leicester
Aon
AVIVA plc
AXA
Bank of England
BT Global
City of London
CRESTCo/Euroclear
Deloitte
DTCC
DTI
Ernst & Young
Euronext.liffe
Eversheds
Fidelity Investments
Finance and Leasing Association
Financial Services Authority
Fitch Ratings
Futures & Options Association
Halifax plc
HM Treasury
Association of Corporate Treasurers
Bank of Italy
Banking Code Standards Board
Brigade Electronics
Chown Dewhurst LLP
Clifford Chance NY
FSA Solutions
International Financial Services, London

We also received important support in kind from, inter alia:

EFG Private Bank
Financial Times
GISE AG
Linklaters

The CSFI also received special purpose support during 2006/07 from, inter alia:

ABC International Bank
Arbuthnot Banking Group
Cisco Systems
Cityforum Limited
Clifford Chance
Close Brothers Group plc
Corporate & Financial Group
Esme Fairbairn Foundation
Farrer & Co
Henderson Global Investors

Morgan Stanley International
PricewaterhouseCoopers
UBS

HSBC Holdings plc
International Capital Market Association
KPMG
Law Debenture Corporation plc
Lloyd’s of London
Lloyds TSB
LogicaCMG
London Stock Exchange
McKinsey & Co
Monitise
Moody’s Investors Service Ltd
Nomura Institute of Capital Markets Research
PA Consulting
Prudential plc
Record Currency Management
Reuters
Royal Bank of Scotland
Standard & Poor’s
Swiss Re
Z/Yen
Zurich Financial Services

Lombard Street Research
NM Rothschild & Sons
Preroy AG
The Housing Finance Corporation
The Share Centre
Threadneedle Investments
Watson Wyatt
Winterflood Securities Limited

ICMA
if›s School of Finance
JPMorgan Chase
Morgan Stanley
National Australia Group
NYU in London
Open Europe
Optimum Population Trust
Resolution
Winterflood Securities