Following the Money:
Financial Services and the Net

BY KEVIN WERBACH

From skyrocketing IPOs to the massive expansion of venture capital, financial developments have been the story behind the story of the Internet revolution. Some of the hype buoying technology stocks has been deflated in recent months as valuations came back to earth. The big picture, though, hasn’t changed: The Internet is changing business and society in fundamental ways.

We don’t know where the capital markets are going. The bursting of the Internet stock bubble does, however, present an opportunity to reflect on the relationship between the Net and finance. So far the Net has largely promoted active stock trading and “get rich quick” thinking, but a new generation of services may encourage better-informed and longer-term investing by individuals. New entrants are starting to expose the inner workings of previously opaque processes, and are challenging the basic assumptions of the industry.

The structure of the capital markets themselves is a major reason for the rapid rise of so many Internet stocks. Internet companies have gone public during periods of intense demand, with only a small number of shares available to the public. Traditional valuation measures such as price/earnings ratios proved useless when few companies even had earnings, leading investors and analysts alike to chuck their models in favor of untestable hypotheses about company potential. The excitement fed upon itself.

Never before have investors had so much information about the market, or such ability to track stocks in real-time. An unprecedented bull market, coincident with a robust US economy and the

(continued on page 2)
growth of online trading, fed an explosion of trading volume. Individuals and day-traders influenced the market as never before. It was a wild ride up... and for many a wild ride down this spring.

**If You Build It...**

The laws of economics remain in effect, and that’s as true for brokerages and other financial-services companies as it is for investors. Simply setting up shop online and spending millions on marketing, it turns out, doesn’t magically lead to success... especially in low-margin industries where cutting prices winds up cutting profits.

The first stage of the financial-services revolution, online stock trading, showed that Internet-based competitors could lower prices and steal market share from established players. Charles Schwab, the company that has most successfully implemented online trading, took in more new assets in the second quarter of 2000 than Merrill Lynch, the industry leader. According to financial-services research firm Cerulli Associates, this year there will be more than 22 million online brokerage accounts, and more than 160 online brokerages are in the market today.

Yet online trading hasn’t completely transformed the financial-services industry. Online brokerage accounts represent just two percent of all invested assets in the US, according to Salomon Smith Barney. By 2002 Forrester Research sees $688 billion invested online; a big number, but still just five percent of the total. Though commissions have dropped, the change hasn’t been as dramatic as we’ve seen in Internet access and e-commerce. And it’s hard to see most of those 160 competitors surviving price competition over the long haul.

Most important, though individuals can now trade more quickly and more cheaply, they still have essentially the same menu of financial products to choose from. Buying a stock is buying a stock,
whether over the phone with a broker or online. The Net is most powerful when it lets people do things they couldn’t easily do before: read reviews and listen to sample tracks before buying a CD; get sports scores and topical news headlines in real time; buy and sell goods in global auctions; name their own price for hotel rooms.

The next phase of online financial services will see more innovation in product offerings and business models. New companies will give customers more precise control than ever over their own financial decision-making. The Net has already had a huge impact in making information more freely available. More revolutionary changes will flow from the tools that help investors use that information effectively.

Products and services
There’s an important dynamic in the investment world involving products and services. Products are the concrete objects of one-time transactions, while services are more flexible, ongoing utilities. The Net has a sneaky way of turning product businesses into service businesses. (Hosted software applications are case in point. See RELEASE 1.0, SEPTEMBER 1998.) A book is a product, but Amazon.com’s collaborative-filtering recommendation engines are services. Groceries are products, but Priceline’s WebHouse Club service lets consumers name their own grocery prices. Amazon.com, Priceline and many other online companies use the Net to wrap services around products, thereby creating efficiencies or stimulating transactions.
Traditional companies can’t compete because customers have a better experience buying the same products through the new online service interfaces.

Online brokers also surround their product offerings, such as stocks and mutual funds, with services including research and portfolio tracking. But there’s a difference: Financial products aren’t ends in themselves. People buy them not because they derive any pleasure from the particular instrument (Warren Buffet’s Berkshire Hathaway annual reports notwithstanding), but to make money. This makes services an even more critical part of the value equation. Some services, such as execution, offer diminishing returns as technology and competition squeeze out inefficiencies. Advice, broadly defined as helping customers understand their needs and figuring out how best to meet them, is one service category that has the potential to become more valuable in this environment, if it can be delivered in a scalable way.

Most companies in today’s financial world are services businesses masquerading as product businesses. The cost and revenue structures of most firms are optimized for products. In both the individual and the institutional markets, business models generally depend on trading volume, which drives commissions and fees. So advice becomes pushing the stocks on today’s list, rather than delving into investor needs and developing an optimal portfolio that evolves over time. Historically, the high costs of product creation and distribution justified this model. Thanks to the Net, it becomes possible to offer individual investors the personalized, ongoing advice that previously was economical only for very large portfolios.

**Beyond Online Trading**

Retail online trading eliminated inefficiencies and shook up the industry, because it used the Net to undermine the economics of full-service brokers. A year after its vice-chairman Launny Steffens decried online trading as a threat to Americans’ financial well-being, Merrill Lynch launched its own online trading site in order to compete. Consumers still value advice and relationships with their brokers, but the cost savings and freedom of online trading have for many been too great to ignore. Online trading also gives investors a sense of greater control over their portfolios. In essence, brokers try to demonstrate that they are smart, while online brokerages say that customers are smart. And customers like to be flattered.
Similar trends have been evident in other areas of financial services. Startups have used the Net to provide greater competition and transparency in areas such as home mortgages (Mortgage.com, iOwn.com, Homestore.com), insurance (InsWeb, Quotesmith, eCoverage) and credit cards (NextCard). Middlemen have been disintermediated, prices have come down and consumers have been empowered.

Then again, few of the pure-play online brokers are anywhere near profitability, and they face the same challenges online retailers do in spending heavily to build brands. Competing on price alone is dangerous, especially as established players such as Merrill Lynch have entered the market. The day-traders and “hot money” investors are always looking for lower commissions or better execution, and likely will have little loyalty to existing providers. Transaction-based revenue streams are great when markets surge, but history and economic theory suggest the opposite scenario also occurs. Online financial-services providers must make their revenues more durable and predictable. And in order to increase asset volumes, they must go after non-early adopters who will demand more handholding and who perceive less value in the benefits online brokers offer.

This evolution in service-provider strategies is also consistent with what is happening on the investor-demand side of the equation. Take away the assumption that everything goes up regardless of quality, and people will start looking for more rational ways to optimize portfolios. Only a limited percentage of investors enjoy the process of trading for its own sake. Given the opportunity to achieve the same returns and comfort level while spending less time tracking their portfolios, most ordinary people will choose to devote a greater share of their energy to other things.

**How free are the free markets?**

In financial services, making money is not just a result of operations, it is operations. Generating efficiencies and expanding transaction volumes are the primary goals of firms. So it’s not surprising that financial services leaders have long invested heavily in cutting-edge information technology. Exchanges such as NASDAQ pioneered...
Electronic transactions decades ago, and the financial-services market has rapidly consolidated and gone global in recent years.

It’s easy to assume that the financial-services world is as close as any industry will come to an efficient meritocracy. Success and failure are reflected directly in quantifiable financial results and competition is intense. Regulators mandate disclosure and impose conflict-of-interest restrictions. The reality is not quite so perfect.

Any individual investor who bought the Globe.com at $97, the price at which it first traded after its IPO, might wonder who was able to purchase the stock at the IPO price of $9. The institutional investors and “friends and family” fortunate enough to get the stock at $9 weren’t any smarter or quicker in this particular case; they just had a structural advantage. There are many similar examples. IPO underwriting fees have remained at seven percent despite competition among many firms. Mutual funds are required to disclose their holdings only twice a year, which keeps investors in the dark for long stretches and creates incentives for fund managers to engage in “window dressing” (adding hot stocks right before the disclosure window). Equity research analysts scream buy ratings for stocks their employers recently took public.

Most of these situations involve imbalances between the information and opportunities for institutional investors and those available to individuals. Some of this has always been the case, and always will be. Large investors and professionals have access to more and better information than individuals. Yet this is changing thanks to the Net. “With the dissemination of information over the Web, the individual investor has gone from an information blackout to having more information available than professional money managers had five years ago,” says Epoch Partners ceo Scott Ryles (see page 14). There are increasingly opportunities for new entrants to provide smaller investors with services and benefits they previously couldn’t get.

Some of the biases and inefficiencies in the system today are simply cases where investors are over-charged because they don’t know better. Market-makers pocket the spread between bid and ask prices on stocks they trade, and they pay brokers to steer this “order flow” their way. On a 1,000 share trade with a 1/8 point spread, an investor pays $125, far exceeding the commission on his or her statement. And in the case of mutual funds, where the typical annual fee on $32,000 (the average mutual-fund investment) exceeds $400, the information doesn’t even have to be disclosed on the statement. According to former Securities and Exchange Commission (SEC) commissioner Steven Wallman (see page 10), SEC studies show two-thirds of investors think they pay nothing at all for no-load, no-transaction-fee mutual funds.
There are straightforward ways to limit these practices, which costs investors billions of dollars per year. Disclosure would help across the board. Moving from fractions to decimals in stock prices will eliminate artificial floors on bid-ask spreads, allowing competition to push costs down on liquid stocks. And new products will create alternatives to entrenched pricing structures.

Not surprisingly, established players benefitting from current arrangements are fighting reforms that undermine them. The best path to change is through competitive pressure from new entrants . . . which we turn to next.
The New Financial-Services Innovators

The next-generation online financial-services companies herald four major shifts in the industry. The first is toward greater transparency and disclosure. Investors, especially individuals, are getting more information than ever about what’s in their portfolios, and what that means. The second is a move away from transaction-based fees and commissions and towards advisory services, with revenues based on assets and services rather than trades.

The third development is a de-emphasis on products. Traditionally, investment firms market products such as mutual funds to investors through past-performance numbers, when what investors really care about is having the money to send their kids to college with an acceptable level of risk. The new entrants move the emphasis from what investors should buy to why. Similar to the end-to-end technical architecture of the Internet itself, investors will be able to define their goals and not focus on specific implementation decisions. The products behind the scenes may actually be more complex, so long as their risk, expected return and asset classifications can be quantified, because those are what will drive investor decisions.

The fourth change is disaggregation and recombination of modular services, so that new intermediaries can assemble offerings from multiple providers. This follows the growth of syndication as a model for e-business (see RELEASE 1.0, JULY/AUGUST 1999). Companies will specialize in particular services, and will allow investors to reach those services through many different channels. Fortuitously, modularization also means investors will be able to diversify investments more effectively, which academic finance research has shown is the best way to optimize risk-adjusted returns.

MetaMarkets.com: crusaders for transparency

MetaMarkets practices what it preaches. Its co-founders, CEO Don Luskin and EVP Dave Nadig, believe that mutual funds should disclose more information to their shareholders. So that’s exactly what they do with their creation, OpenFund. Where most mutual funds disclose only their top 10 holdings monthly and their entire portfolios twice a year, OpenFund’s holdings are updated in real-time and displayed for all to see at the MetaMarkets Website. OpenFund’s traders disclose every trade as they make it, along with their rationale. MetaMarkets even offers live Webcam images of its traders in action, lest anyone have doubts.
“The online trading revolution wasn’t so much about trading, as about giving the end-user broadband information,” explains Luskin, referring to the raft of near-real-time data on markets and stocks that is now available directly to investors. He continues: “If you give people not only more information, but give it to them all at once, holistically, you make possible a whole different class of decisions and interactions that were simply impossible before.” For mutual funds, that means telling investors exactly what’s in the fund at any time and why, rather than just showing them periodic snapshots.

MetaMarkets is trying to change the model for mutual funds in other ways. Its site offers various discussion boards featuring commentary from its traders, customers and an advisory group comprised of leading new economy thinkers such as MIT Media Lab director (and MetaMarkets investor) Nicholas Negroponte, telecom visionary David Isenberg, former Wired managing editor Peter Leyden and Atari founder Nolan Bushnell. It’s an online community that strives to be more focused and valuable than the popular but often vapid stock-trading discussion boards on sites such as Yahoo!, Silicon Investor and Raging Bull.

Stripped to its bare essentials, OpenFund is a familiar actively managed aggressive fund, with a structure and business model that resemble its traditional competitors. At this writing, the tech-heavy $35-million fund is up 90 percent from inception on August 31, 1999, almost double the return of the NASDAQ, though like most Internet stocks it’s far below its high and up only 3.6% this year. None of the technology MetaMarkets employs is particularly cutting-edge for a dot-com, though applying it to a mutual fund is. “The mutual-fund business has not at all been transformed by the same forces that transformed brokerage,” says Luskin.

Luskin and Nadig both came from investment-management firm Barclays Global Investors, where Luskin served as vice chairman and CEO of Barclays Global Mutual Funds and Nadig was a managing director and chief strategy officer. They argue that mainstream individual investors should have access to the same kinds of information that their prior institutional and high-net-worth clients took for granted.

Similarly, MetaMarkets’ discussion boards and think tank make use of untapped information. “One of the reasons the vast majority of mutual funds under-perform the market is that ultimately they are just listening to the same sources of information,” says Nadig. By using both high-level trend analysis from the think tank’s experts and bits of information from a large number of individual investors, the MetaMarkets team believes it can deliver consistently market-beating returns. The
investment decisions are still made by MetaMarkets’ professionals, but input such as a geneticist’s posting about which gene sequencers she plans to buy may tell more about a company’s performance than traditional financial analysis.

Critics argue that MetaMarkets’ radical openness will encourage investors to move money in and out more frequently, but Luskin and Nadig see the opposite effect. In times of volatility such as this spring, for example, mutual-fund investors are likely to panic and sell because they have no idea what their fund managers are doing. OpenFund investors, in contrast, could see exactly what actions the fund was taking in response to the market conditions, creating confidence and trust. That, as the Web marketers say, makes the relationship more sticky. With information flowing freely in both directions, MetaMarkets hopes to build solid, long-term relationships with its customers, to the benefit of both sides.

**FOLIOfn: roll your own mutual fund**

FOLIOfn is the brainchild of former SEC commissioner Steven Wallman (see **RELEASE 1.0, MARCH 1998**). It was during Wallman’s term that Wit Capital, a spinoff of a small brewery started by former lawyer Andrew Klein, brazenly attempted a stock offering over the Net. Rather than crush this upstart, Wallman urged the SEC to work with it so that Wit could go forward consistent with legal requirements. He also crusaded for other reforms to eliminate hidden costs that disadvantage most investors. But he came to realize something was missing. “What I used to do as a commissioner at the SEC was go out and make some speeches about how people ought to invest,” Wallman explains, but what he recommended — analyzing fundamentals, reading prospectuses and annual reports, carefully selecting stocks, diversifying — was virtually impossible for most individual investors.

Doing the research to pick a stock is hard work, which is why there’s a whole Wall Street industry that does it full time. And, Wallman notes, “even if it’s a good company, and you want to buy it, you need to decide if everyone else thinks it’s a good company, and has bid up the price.” Yet the only realistic alternative for most investors is the mutual fund, which has disadvantages too: loss of control, poor tax efficiency, potential for “style drift” if the manager changes its investment approach and, most importantly, fees that average 1.25 to 1.5 percent or more.
So after a stint at the Brookings Institution, Wallman started FOLIOfn. (The last two letters signify “financial innovation.”) The company launched its first product, Folio Investing, in May. Folios are baskets of stocks that can trade as a unit. Want to buy the 20 leading Internet companies? Or the top Internet infrastructure players? Or the Dow 30 stocks minus Philip Morris because you don’t want to hold tobacco stocks? With Folio, you simply buy the basket of stocks you want, up to 50 in each Folio from a universe of 2500 stocks. FOLIOfn offers 80 starter Folios, from which investors can add or delete individual stocks, or customers can build their own Folios from scratch.

Wallman sees FOLIOfn fundamentally changing the way most people invest. First, by making it easy to diversify, Folios allow individuals to take advantage of the benefits shown by modern portfolio theory: similar expected returns with lower risk, or greater expected returns at the same risk level. “The magic of diversification is basically the closest thing to a free lunch that we know of in this universe,” notes Wallman. Second, Folios shift the investment process from stock-selection to achieving goals with a defined risk level. “The individual stocks in the portfolio are in a way wholly irrelevant,” says Wallman. It’s as though the auto industry told car-buyers to find the best ball bearings, the best gears, the best cam shaft and the best engines, rather than looking at the whole car, he argues.

FOLIOfn also differs from traditional brokerages in its fee structure. “We decided we did not want to align our interests against our customers,” explains Wallman. “A thing that is bad for customers is to encourage them to churn,” he adds, pointing out that per-trade commissions make brokerages dependent on active trading, which academic finance and real-world studies have shown hurts most investors over the long haul. FOLIOfn therefore charges a flat fee — $29.95 per month or $295 per year — for up to three Folios. To avoid per-trade commissions customers must agree to have their trades execute within two daily “windows.” This allows FOLIOfn to match some of its buyers and sellers internally, in which case it need not pay market-makers the spread between bid and ask prices.

Folio is the kind of product innovation that investment banks and other firms have been developing for years for institutional investors, but which historically haven’t been available for individuals. “We basically built a new brokerage from the ground up to make this work,” observes Wallman.
Financial Engines: revving up investment recommendations

Financial Engines has an impressive pedigree. Its three founders were Bill Sharpe, an economics Nobel laureate for his work on modern portfolio theory; former SEC commissioner and Stanford professor Joe Grundfest; and Venture Law Group founder Craig Johnson, an influential figure in Silicon Valley. They added corporate-finance wunderkind Jeff Maggioncalda as ceo. The company was formed in 1996 and launched in October 1998.

“The real purpose [of investing] for the majority of America is to try to have a certain amount of money down the road,” says Maggioncalda. But most investors have no good way to assess their chances of achieving their goals. So Financial Engines, Maggioncalda says, is “delivering to the individual the same basic approach to investing that the largest pension-fund managers have been doing for decades.” The company began with employer-sponsored 401(k) retirement accounts and now supports all tax-advantaged accounts such as IRAs. Within six months it will also handle taxable accounts.

Financial Engines’ software builds economic scenarios taking into account fluctuations in inflation, interest rates, stock-market returns and dividend growth rates. The models are consistent across variables (e.g. interest rates affect equity returns) and time (e.g. inflation usually spikes up quickly but drops back down slowly). Modeling scenarios is important because the same average rate of return can generate different outcomes based on the fluctuations along the way. Next, the software models the effects of each scenario on fifteen classes of assets. It then projects the performance of each stock and mutual fund based on their correlation with those asset classes, factoring in expenses, taxes, turnover and other factors.

Once users plug in their investment holdings and goals, Financial Engines simulates roughly 10,000 scenarios to determine the likelihood of different results. It tells users the probability they will reach their goal, and also the risk level of the portfolio (volatility compared to the market as a whole) and the one-year downside under the worst five percent of scenarios. Financial Engines then gives users specific buy and sell recommendations to improve their chances of success. The advice is unique to each investor, and is tied back to the scenario models so users can see the effects of each change on their potential outcomes. Modern portfolio theory provides the mathematical framework for Financial Engines’ portfolio-optimization recommendations, which are designed to offer the most efficient asset allocation given the...
investor’s desired level of risk. Finally, Financial Engines offers ongoing monitoring, so investors can tweak their portfolios as conditions change.

Financial Engines devoted a great deal of effort to its user interface, in particular its signature “weather report” (see Figure 1). Statistics don’t lie, but what matters is how users interpret them, and humans are notoriously bad at dealing with probability. Rather than just display a number, Financial Engines employs a graphic that changes dynamically with the percentages, from dark and cloudy to bright and sunny. The company fine-tuned the interface repeatedly based on focus groups and psychology research. For example, people tend to over-weight possibilities at the top and bottom edges of the range, so Financial Engines truncates its displays at the highest and lowest five percent.

Financial Engines markets its service through three channels. It licenses the software on a wholesale basis to firms such as T. Rowe Price that offer 401(k) plans to companies. It also wholesales to plan-sponsoring companies so they can offer employees advice along with the plans. Finally, it makes its services available directly through the Financial Engines Website, and elsewhere such as AOL (where the company has done 2 million forecasts so far). Initial forecasts are available for free, but recommendations cost $14.95 per quarter for one retirement account or $39.95 per quarter for multiple accounts. Financial Engines currently advises customers with over $50 billion in assets, with an average portfolio size around $400,000.

Financial Engines has competition in online 401(k) advice and recommendations, including mPower and Rational Investors (acquired recently by Standard & Poor’s). But the others don’t provide the same scenario-modeling capabilities, and aren’t available to end-users directly. Other automated advice sites such as DirectAdvice and AdviceAmerica don’t offer the sophistication of Financial Engines’ models and the granularity of its recommendations. A recent entrant is Acumation, a subsidiary of fund-family American Century, which looks to be a serious competitor. Financial Engines has first-mover advantage and relationships with key players, but the real question is how big a market there is for advice as competition pushes down prices.

Maggioncalda is undaunted. As technical and regulatory barriers fall, he believes, all major financial-services firms will offer individuals a wide range of different ser-
vices. In this environment, he says, “advice is to the balance sheet what bill-payment is to the income statement. It is the way to get your whole picture together and to conveniently make decisions about how you should be managing your financial life.”

**Epoch Partners: a new epoch for investment banking?**

Epoch Partners was created by a partnership of Charles Schwab, Ameritrade and TD Waterhouse, along with Kleiner Perkins, Benchmark Capital and Trident Capital. It plans to tackle the underwriting oligopoly of large established investment banks such as Morgan Stanley and Goldman Sachs, which has remained largely intact despite the financial-services changes of recent years. Wit Capital and W.R. Hambrecht have both fought to enter this exclusive club, with only limited success.

Epoch hopes its ties with brokers representing $800 billion in assets — half the online total — along with its top-tier venture capitalists and their portfolios of startups, will give it the leverage it needs. The company recruited Scott Ryles, formerly head of technology investment banking in Silicon Valley for Merrill Lynch, as its ceo, and brought in a cadre of high-level bankers and analysts from major Wall Street firms. Epoch received its SEC broker-dealer license at the end of June and participated in its first IPO, Corio, last week. (It was involved in four previous deals under the Ameritrade umbrella.)

“Epoch is fundamentally about information flow on Wall Street as opposed to capital flow,” says Ryles. “While there are lots of individuals and in aggregate they amount to a huge pool of capital, they didn’t have access to the information.” Thanks to the rapid expansion of market information available through the Net, individuals have gone from being largely passive investors to active players, especially in new offerings. Where once institutions held 80 percent of the equity in most companies, individuals now hold 70 to 75 percent in technology stocks, according to Ryles.

The problem is that the investment-banking industry isn’t structured for this broader investor pool. Its research, for example, is designed for a small audience. “The real value of research isn’t the black ink on white paper,” says Ryles. “The real value to institutions is the ability to have a dialogue on an as-needed basis with a research analyst who is more in the flow of information with a company than they can hope to be. The problem with that dialogue is that you can’t scale it.” Epoch will offer novel forms of Web-based research, concentrating on educating investors about company prospects rather than applying arbitrary buy/sell/hold ratings.
Epoch also hopes to change the way companies conduct their IPOs. Today institutions still get 80 percent of the initial equity of new offerings, but once the dust settles most of that stock winds up with individual investors. In other words, the institutions are flipping their hot shares at a premium.

A company going public doesn’t benefit financially from this, because it receives only the offering price for the shares it sells. It may gain some publicity for its first-day “pop,” but the stock usually sinks back rapidly. (According to Morgan Stanley, 55 percent of Internet IPOs since Netscape were below their offering price as of June 1, and 71 percent were below their first-day close.) The company has left money on the table by pricing its offering too low, and it may find employee recruiting and retention difficult if its stock never returns to its first-day high. Venture capitalists are also concerned about these negative effects on startups’ long-term success (and their own returns), one reason Kleiner Perkins and Benchmark are backing Epoch.

What companies really want, and what Epoch promises to facilitate, is to get their stock into the hands of informed, long-term investors. Traditionally the company hands over its shares to the underwriters, who have incentives to sell it to their best (i.e. most active) customers. Epoch uses a different approach, according to Ryles:

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**ONEXCHANGE: DERIVATIVES FOR B2B MARKETPLACES**

Innovation in online financial products and services is taking place in many areas beyond the individual-investor offerings described in this issue. One major category that promises to have significant effects on e-commerce (and vice versa) is derivatives.

Derivatives are an important element of modern capital markets, because they serve many purposes. They facilitate liquidity of markets, and for participants they can serve to hedge risks by guaranteeing supply or demand even if conditions change dramatically. Industries with heavy uncertainties about future production, such as agriculture and energy, have long used futures, options and other mechanisms to manage risk.

Despite the explosion in B2B Net marketplaces, there have so far been hardly any efforts to bring derivatives to those marketplaces, though it seems inevitable they will play an important role in the future (see RELEASE 1.0, SEPTEMBER 1999).

OnExchange hopes to be a facilitator of derivatives across B2B marketplaces. The company, based in Waltham, MA, was founded in February by veteran commodities trader Rich Jaycobs, UCLA sociology professor and online marketplace expert Peter Kollock and Vermeer executive Ed Cuoco. It has raised $10 million from Sigma Partners, Matrix Partners and OneLiberty Ventures.

OnExchange plans to offer B2B marketplaces a derivatives trading platform and the services necessary for the marketplace to develop and deploy this capability. Marketplaces will be able to define risk-management offerings that meet the specific needs of their industries and participants. OnExchange has taken the difficult step of applying to the Commodity Futures Trading Commission (CFTC) to be licensed as a fully-regulated commodities exchange, which is required for it to offer futures contracts. Regulatory approval is expected in the third quarter of this year, with trading beginning soon thereafter.
“We actually target the investor that we want to sell the stock to.” The company uses data mining to identify investors who have a track record of not flipping, buying in the aftermarket and owning comparable securities. Ryles estimates of the 10 million accounts Epoch’s partners manage, only a few thousand will meet its criteria. Issuing companies can also define a particular demographic or investor class they believe will understand its business and be informed shareholders for the long haul.

Ryles think Epoch can create a better mousetrap for both individual and institutional investors. The institutional market is fragmenting at the same time as individual are becoming more active, because the proliferation of information makes it easier for small asset-management firms to compete. The only solution is to use the Net to deliver information to investors in a more scalable and targeted way, and there Epoch believes it has an advantage because of its lack of legacy infrastructure and channel conflicts.

Taking Stock: Financial Services Going Forward

Cooling off the hot money
The growth of individual investing and day trading over the past few years has contributed to both unprecedented valuation levels and unprecedented volatility. The barriers to moving money among stocks, mutual funds and other vehicles, even between different brokers, have dropped significantly. Commissions are lower, and thanks to online trading and mutual-fund supermarkets, investors have easy access to a huge number of investment opportunities. Momentum investors, especially day-traders, have quickly bid up the price of hot Internet stocks, only to sell en masse when the tide begins to turn.

If the first stage of Internet financial services increased volatility and short-term thinking, the next stage may very well do the opposite. By giving investors more information, and tying that information to broad goals, companies such as Financial Engines, Epoch and MetaMarkets hope to build more trust with their customers. FOLIOfn hopes to do the same by making it easier for investors to diversify.

In some ways these developments hearken back to the relationships investors historically had with their full-service brokers, only they put the investor much more in control and dramatically reduce the costs involved. With the information and tools to take the long view, many investors will do so, especially if, as is statistically likely,
stock-market returns regress to the mean and no longer offer the hope of making a quick killing. Epoch’s Scott Ryles, noting that the average individual spends seven hours analyzing a stock before deciding to buy it, argues, “If you look at what an institution looks at before it makes an investment decision, and you look at what an individual looks at, there’s a high degree of overlap.”

A thousand flowers bloom
In evolutionary terms, we’re experiencing a period of rapid speciation in financial services, especially in terms of the offerings available to end-users. MyCFO, started by Netscape and SGI founder Jim Clark, gives high-net-worth individuals a consolidated service for managing accounting and tax issues, using the Internet as a distribution platform. StockJungle and iExchange are trying to harness the wisdom of individual stock pickers. Draper Fisher Jurvetson’s MeVC is a venture fund structured as a closed-end mutual fund, allowing individuals to buy and sell it rather than depending on capital from institutions. Offroad Capital (see RELEASE 1.0, MARCH 2000) opens up the private equity process to a wider range of individuals and companies.

These services differ widely among themselves, but they show the level of innovation going on in the financial-services world. Also, with the growth of aggregators such as Yodlee and VerticalOne (see RELEASE 1.0, JULY/AUGUST 1999; RELEASE 1.0, APRIL 2000), users will increasingly be able to pull together all their account balances onto one Web page. Using a new service will no longer take you away from viewing your portfolio, and services will be able to pull from your existing data rather than requiring you to re-enter it.

In short, there will be much more complexity in financial services, especially for individuals, but also better tools to manage that complexity. And in a complex, confusing world, that’s what most investors ultimately want.

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COMING SOON

- Triumph of the Weblogs.
- Broadband service platforms.
- How safe is your site?
- The Net and education.
- Streaming applications.
- E-commerce enablers.

- And much more... (If you know of any good examples of the categories listed above, please let us know.)
Telecom Policy Gets Disconnected

BY KEVIN WERBACH

On June 22, the US appeals court for the ninth circuit issued a decision that generated little interest outside the academics and lobbyists in the communications field. Admittedly, the decision itself won’t mean much to businesses other than the parties in the short run, but it heralds a major change in the regulatory structures governing Internet infrastructure. Most Internet companies today may see such legal issues as arcane and irrelevant. The landscape for Net companies, however, depends heavily on the economics and business dynamics of the underlying network platforms. And those networks will be influenced dramatically by the coming shift in regulation.

The court case involved the city of Portland, OR and its effort to impose open-access requirements on Excite@Home’s broadband cable Internet service, now controlled by AT&T. As we’ve argued before, the open-access battle may define the future architecture of the Internet (see RELEASE 1.0, FEBRUARY 1999). The Internet has thrived because it’s an open platform, where infrastructure providers don’t control higher-level applications. That model is threatened if cable and telephone companies use their virtual monopolies over the last mile into homes to build closed systems that exclude competing Internet service providers (ISPs) and content providers.

Reversing a lower court, the ninth circuit concluded that Portland exceeded its legal authority. This was an issue of exclusive federal jurisdiction, it held, meaning only the Federal Communications Commission (FCC) or Congress could mandate open access. On its face, this was a victory for AT&T and the cable industry. These companies are now free to deploy their cable Internet service in Portland without regulation from city authorities requiring them to interconnect with competitors.

On the other hand, the debate has shifted dramatically since we first examined it. Back then AT&T and Time-Warner, which control the two dominant cable Internet services in the US, flatly refused to implement open access and claimed it was technically impossible. Both have since issued written promises to adopt some form of interconnection with competing ISPs. AT&T has said it will start open-access trials in November, and Time-Warner, thanks to its pending acquisition by AOL, is already beginning trials in Columbus, OH. After repeatedly refusing to take action, FCC chairman William Kennard announced following the ninth-circuit decision that his agency would consider open access in a forthcoming regulatory proceeding.
The real impact

But there’s a deeper story. The court decision puts significant pressure on the regulatory structure governing communications in the US. Congress and the FCC have so far avoided any serious attempt to reconcile the Internet with existing rules. But the old and the new are incompatible, and something has to give. The necessary changes will likely take years, though now is the time for Internet companies to think about how to influence them when they do come to the policy agenda.

The FCC has managed to avoid imposing traditional telecommunications regulation on Internet-based services through a careful process of decisions and non-decisions. (Disclosure: Kevin Werbach served as counsel for new technology policy at the FCC until April 1998.) The laws governing communications divide up the world into horizontal categories such as “telecommunications,” “information services,” “broadcast” and “cable.” Once a service is classified, a series of regulatory requirements follow. Beginning in the 1970s, the FCC carved out a category of “enhanced” or “information” services that were exempt from most of its rules. This category, which involves computer processing to manipulate information, originally included services such as voice mail and early value-added data networks.

When commercial ISPs began offering service in the early 1990s, they were classed as information-service providers and thus not subject to regulated pricing or other obligations. That distinction has held up, despite services such as Internet telephony and streaming video that bear close resemblance to traditional regulated offerings.

Then came the Portland case. Reaching a conclusion neither of the parties advocated, the ninth circuit found that Excite@Home’s offering is a form of “telecommunications.” If Internet access is in the same category as telephone service, does that make it subject to the same rules? Interconnection obligations, universal-service contributions, compliance with wiretapping requirement and more all flow from that initial classification. The FCC will likely dance around this conclusion, as it has before, because it’s convinced that most of these rules make no sense applied to the competitive, open Internet. But it will find itself on increasingly shaky ground.

A better alternative: going vertical

Is there a better way? We think so. The fundamental flaw in the current structure of communications regulation is that it is based on horizontal service classifications. The only way to make the legal structure consistent with the Internet is to switch from a horizontal to a vertical approach. The salient architectural characteristics of
The Internet are its end-to-end model and its vertical layers (see Release 1.0, February 1999 and May 1999). In other words, applications at the edge of the network don’t depend on software in the middle, and each layer of the network stack is independent and interfaced through open protocols. A browser runs on IP regardless of whether it’s over telephone lines, coaxial cable or wireless spectrum, for example.

The way to structure communications regulation, then, is to track this architecture. Different policy approaches should apply to each of four primary Internet layers, in ascending order: physical infrastructure (networks themselves); logical infrastructure (the domain name system, addressing structures, distributed caching and content delivery platforms (see Release 1.0, December 1999)); applications and services (the World Wide Web, IP telephony, etc.); and content (music, voice, etc.). In general, regulators should be most concerned about promoting competition at the lower layers. In addition, the interfaces between layers should be open, so that a company cannot use its dominant position on one level to gain advantage at another level.

The FCC may not be bound by the ninth-circuit decision because it wasn’t a party to the lawsuit, but it’s clear that the legal house of cards it has defended is under siege. Another court recently rejected the FCC’s framework for “reciprocal compensation” between telephone companies carrying ISP traffic, and a bill that passed the House of Representatives in May suggested that Internet telephony services should be subject to the “access charges” paid by long-distance carriers.

It’s highly unlikely the FCC will take any aggressive steps so close to a presidential election, and regardless of who wins the election the majority of the FCC commissioners will turn over shortly thereafter. The new regulatory structure also may come from Congress rather than the FCC, though political considerations often make it difficult for Congress to reach a considered consensus on such issues.

So there’s time to think about what a new regulatory structure should look like. But it’s time that should not be wasted. “Don’t regulate the Net” isn’t a sufficient solution. With new IP telephony services such as Pagoo that let users make and receive calls to ordinary phone numbers, and streaming video programming that is on the verge of competing with television (see Release 1.0, November 1999), the lines between the Net and established communications services are disappearing. Totally deregulating everyone doesn’t make sense because the incumbents still have monopoly control over essential facilities. As with the raging intellectual-property controversies over file-sharing services such as Napster, key assumptions underlying the existing laws are simply no longer true.
Resources & Phone Numbers

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Richard Jaycobs, **OnExchange**, 1 (781) 672-3405
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**For further reading:**
Cerulli Associates, "The Internet and Financial Product Distribution" (March 2000), www.cerulli.com
Ninth Circuit decision in AT&T v. City of Portland: techlawjournal.com/courts/portland/20000622op.htm
Calendar of High-Tech Events

2000

AUGUST 1-2  **HERRING ON HOLLYWOOD** - Los Angeles, CA. When Hollywood meets the Net, is anyone safe? To register, call 1 (888) 286-2167; fax 1 (415) 788-8848; events@redherring.com.

AUGUST 1-6  **7TH INTERNATIONAL CONFERENCE ON THE SIMULATION AND SYNTHESIS OF LIVING SYSTEMS** - Portland, OR. Looking back and looking forward on artificial life research. For more info, call 1 (503) 788-6693; fax 1 (503) 788-6643; alife7@alife.org.

AUGUST 15-17  **JUPITER ONLINE ADVERTISING FORUM** - New York, NY. Call 1 (800) 611-1693; fax, 1 (212) 475-3896; customerservice@jup.com; www.jup.com.

AUGUST 20-22  **PROGRESS AND FREEDOM FOUNDATION ASPEN SUMMIT** - Aspen, CO. Seventh annual conference on cyberspace and the American dream. Call 1 (202)-289-8928; fax, 1 (202)-289-6079; mail@pff.org; www.pff.org/aspen2000/aspen00.htm.

SEPTEMBER 6-9  **DEMO MOBILE** - Pasadena, CA. On the road again, I just can’t wait to get on the demo road again. To hitch a ride, call 1 (800) 633-4312; registrar@demo.com; www.demo.com/demo_conferences/demo_mobile.html.

SEPTEMBER 6-9  **NET RETURNS** - Aspen, CO. The Industry Standard’s strategy conference. To request an invitation, visit www.thestandard.com/events/netreturns or call 1 (800) 953-3318.

SEPTEMBER 11-14  **FALL 2000 VOICE ON THE NET** - Atlanta, GA. Pulver.com’s IP telephony juggernaut rolls on. For more info, 1 (631) 547-0800; fax 1 (631) 293-3996; www.pulver.com.

SEPTEMBER 11-15  **6TH CONFERENCE ON THE SIMULATION OF ADAPTIVE BEHAVIOR** - Paris, France. This year’s theme is “From animals to animats.” Fax +33 (1) 44 27 88 09; www-poleia.lip6.fr/ANIMATLAB/SAB2000/.


SEPTEMBER 23-25  **TELECOMMUNICATIONS POLICY ROUNDTABLE CONFERENCE** - Alexandria, VA. The premier gathering of telecom and convergence policy wonks. For information or to register call 1 (202) 452-9033; fax 1 (202) 296-7128; email tprc@ei.com; www.tprc.org/2000.htm.

SEPTEMBER 25-27  **ELECTRONIC BOOK 2000** - Washington, DC. Third annual workshop on the changing fundamentals of reading. Sponsored by NIST and NISO. For info contact Victor McCrary at 1 (301) 975-4321; victor.mccrary@nist.gov.
Calendar of High-Tech Events

OCTOBER 4-5  WALL STREET JOURNAL TECHNOLOGY SUMMIT - Washington, DC. "The Next Economy: Business, Public Policy and the Internet." Participants ranging from rapper Chuck D to Treasury Secretary Larry Summers. For info call 1 (800) 457-5766; email techsummit@wsj.dowjones.com.; info.wsj.com/techsummit/.

OCTOBER 5-7  PRIVACY: A SOCIAL RESEARCH CONFERENCE - New York, NY. Hosted by the New School University. To register, call 1 (212) 229-2488; fax, 1 (212) 229-5476; socres@newschool.edu. 🇺🇸

OCTOBER 14-18  AGENDA - Scottsdale, AZ. Bob Metcalfe once again leads senior executives in pondering the agenda for the industry. Contact IDG Executive Forums at 1 (800) 633-4312; fax, 1 (650) 286-2750. 🇺🇸

OCTOBER 15-18  DIRECT MARKETING ASSOCIATION CONFERENCE - New Orleans, LA. Trust us, spam is good for you! Call 1 (212) 790-1500; customerservice@the-dma.org.

OCTOBER 16-18  CREATING DIGITAL DIVIDENDS - Seattle, WA. Applying digital technology for sustainable development. Speakers include Jeff Bezos, Carly Fiorina, Vint Cerf, Martin Varsavsky and many more. Organized by the World Resources Institute. For more info, contact Al Hammond, 1 (202) 729-7777; allen@wri.org. 🇺🇸

OCTOBER 27-29  CAMDEN TECHNOLOGY CONFERENCE - Camden, ME. This year’s event is titled PopTech 2000: Being Human in the Digital Age. To register, call 1 (888) 877-3128; info@poptech.org; www.camcon.org.

OCTOBER 30-31  NDA 2000 - Carlsbad, CA. For more information, sign your John Hancock, or call 1 (888) 286-2167; www.redherring.com/events/nda2000/.

NOVEMBER 1-3  EDVENTURE’S HIGH-TECH FORUM - Barcelona, Spain. Our 11th year in Europe. Call Daphne Kis, 1 (212) 924-8800; fax 1 (212) 924-0240; daphne@edventure.com. More info at www.edventure.com. 🇪🇸 🇪🇸

NOVEMBER 13-16  ICANN SECOND ANNUAL MEETING - Marina Del Rey, CA. Help shape the future of Internet addressing. See www.icann.org for more information. 🇺🇸

Events Esther plans to attend.
Events Kevin plans to attend.

Lack of a symbol is no indication of lack of merit. The full, current calendar is available on our Website, www.edventure.com. Please contact Joanna Douglas (joanna@edventure.com) to let us know about other events we should include.
Please join us for what promises to be the industry’s most stimulating and interactive event of the year, November 1 to 3, 2000 in Barcelona, Spain! With this year’s theme — Clicks and Borders — we consider the state of the European Internet marketplace at the turn of the century.

It is a market of clicks — not just users’ mouse clicks but also the clicks of meters counting time, measuring usage and occasionally recording profits. It is a market of borders — not just between countries, but between wired and wireless, between entrepreneurs and the Establishment, between the free market and regulators, between the EU and the less-favored “rest of Europe.”

For conference details and a speaker list, please visit http://www.edventure.com/htforum2000.html.

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