

### Demographic Plays

- Health care
- Travel and leisure
- Minority marketing
- Womencentric services
- Wealth management
- Spiritual products

Politically, baby boomers will face their first real challenges from outside their own demographic, as the larger combined size of Generations X and Y begins to wield meaningful influence economically, technologically, and socially.

In short, emerging demographic shifts not only will play a primary role, but, given the size and scope of the changes taking place, will also prove disruptive to past technological, economic, and social legacies. Wise investors will find huge opportunities emerging where these legacies are falling away.

### STAR GAZER

#### ED MATHIAS

managing director at the Carme Group. Ed has one of the rarer backgrounds among investors in emerging growth companies and is regarded as an expert at the end of the market. Ed has been a general partner at the Carme Group since 1993. He has experienced financial at all levels, including as senior portfolio manager of New Horizons Fund, a hedge member of the board of directors at Power Prices, and as a partner in the investment firm of New Enterprise Associates. I spoke with Ed about his advice for growth

Mission: Go, read my Will. (Interview with Ed Mathias, CEO of Carme Group, a leading venture capital firm.)

...all the people who want to be growth investors have to be willing to do the venture focus on their own, do their own research, and make their own decisions. They're not going to have as much information as the hedge funds or the money managers with huge research staffs, but they may have a dose of common sense which could be helpful. The people who really succeed as investors are those who have a passion and spend a lot of time and think you can do that as an individual. You just don't have to say the two key factors are to understand your own situation and also have control over your emotions. Understand how you make decisions, look at your record over time and sort out your strategy to that.

### → MEGATREND 5: CONVERGENCE— SEEING THE WHOLE FIELD

"Convergence is when your site finally loads just as your laptop's batteries die."

—STUART CHIRLS, EDITOR, *THE JOURNAL OF COMMERCE ONLINE*

Ten years ago, Bill Clinton was elected to his second term as president, Nicholas Cage won an Oscar for best actor in *Leaving Las Vegas*, O. J. Simpson was on trial for murder, Timothy McVeigh was on trial for the Oklahoma City bombing, and Atlanta hosted the 100th anniversary of the Olympic Games.

Do these events seem as though they happened just yesterday? My point is that 1996 wasn't that long ago. Yet, while most businesspeople were using a cell phone and many professionals were using a pager, no-

body could imagine one device that could act as a phone, messaging service, e-mail system, camera, calendar organizer, computer, alarm clock, and entertainment center.

Research in Motion (RIMM), maker of the highly addictive BlackBerry smart phone, had by January 2006 built a \$12 billion market cap company by being able to integrate all these seemingly distinct functions onto one device the size of your palm.

In the game of football, great quarterbacks do two things that separate them from average quarterbacks. First, they see the whole field and don't get trapped by focusing narrowly on one receiver or zone. This makes it possible to take advantage of opportunities wherever they may present themselves and makes competing against them magnitudes harder. Second, great quarterbacks are able to see two or three moves ahead. As with a great chess master, being able to play out scenarios to optimize outcomes is the key to success.

Similarly, to be able to identify the stars of tomorrow, investors need to see the whole field and be able to look at least two or three moves ahead in terms of where the industry is heading and converging.

Convergence is the coming together of two or more distinct entities or phenomena. This is a megatrend that is increasingly prevalent in an IT world where cell phones take pictures and televisions surf the Web. Much of the emerging area of nanotechnology is around the converging fields of computer storage, semiconductors, biotechnology, manufacturing, and energy. In health care, convergence will affect targeted drug delivery, gene therapy, and a variety of future applications for medical technology.

POTENTIAL CONVERGENCE OPPORTUNITIES AND TIMING	
OPPORTUNITY	LIKELY TIMING OF TAKE-OFF
Implantable drug pumps	Next 2 to 5 years
Targeted drug delivery	Now

OPPORTUNITY	LIKELY TIMING OF TAKE-OFF
Closed-loop diabetes management systems	Next 2 to 5 years
Noninvasive in vivo diagnostics	Next 2 to 5 years
Remote monitoring and therapy management	Next 2 to 5 years
Targeted cell/gene therapy delivery	Next 5 to 10 years
Image-guided surgery	Now to the next 2 years
Noninvasive therapies/intervention (e.g., radiotherapy, cryotherapy, heat therapy)	Now to the next 5 years

Source: Windhover Information, Inc., and Bain & Company.

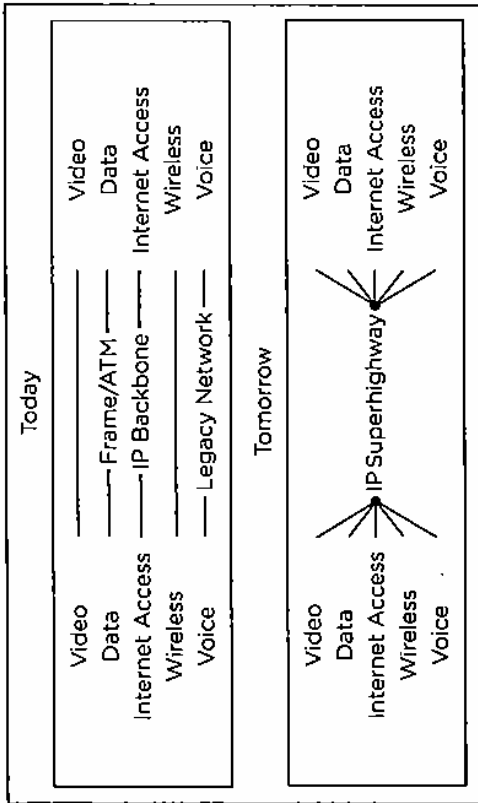
The real point of convergence is that solutions can be created in the spaces between traditional disciplines. Convergence is really about appreciating solutions without needing to reveal or understand what had to come together to reach that solution. Studying the underlying software code for salesforce.com is unnecessary; appreciating the business proposition and return on investment (ROI) for its customers is the key issue.

Figuring out how TiVo works hurts my brain and makes me question my existence, but understanding how it alters the dynamics of the television experience and economics is the investor's puzzle.

Analyzing how convergence will impact specific company opportunities requires investors to redraw the lines of how industries are defined. Wall Street—which likes to think of the world in nice, convenient brackets with a rearview mirror as its navigating device—rarely sees what is ahead.

By looking over the horizon and crossing the boundaries, by thinking “what if” as opposed to mastering the obvious, we can find the big winners.

Convergence Landscape



Source: Acquiror, ThinkEquity Partners.

Convergence fuels the search for efficiency, and collaboration between experts in different fields is the catalyst driving convergence. Convergence in telecommunications is effectively the foundation of the knowledge economy. Convergence increases information flow between businesses and consumers, and it drives out inefficiency and creates exponential growth in a network's value.

Widespread adoption of the Internet by businesses and consumers initiated the convergence of voice and data networks, though this remains in its infancy. The past growth of the Internet was driven by access, then by access at faster speeds, and ultimately by access to the Internet from every device. However, the Internet largely remains a destination, with its value derived from being able to reach information.

Today, value is increasingly being derived from communication. The next stage of development will be driven by the ability to communicate and collaborate, with the near-term infrastructure focus being VoIP and longer-term focus being XolP (Anything over Internet Protocol), enabling voice, interactive data, video, and applications over a common IP-based network.

Beyond user-to-user and business-to-business communications, sensors and smart tags will allow businesses to wring greater inefficiencies

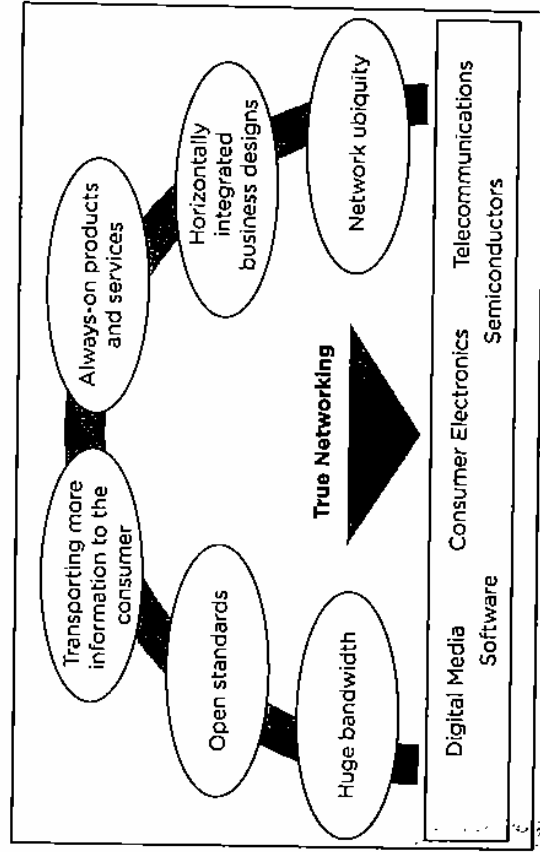
out of their operations—specifically their supply chains—and increase responsiveness to end-market demand and changing customer preferences.

Digitally “tagged” products, such as Wal-Mart has requested of its suppliers, will allow businesses to better manage product and inventory flows, taking unnecessary float out of the supply chain and effectively moving closer to matching customer demand in real time, while minimizing the commitment of resources to unneeded inventory.

Smart tags, or small-scale chips linked to local databases, will be increasingly tied together through Web services, bringing peer-to-peer computing to small-scale technologies that transmit information when and where it is needed—or on the fly. This further enables information to shift to the edge of a business's network, where supply-chain logistics, distribution, and customer responsiveness occur.

The result is that critical information will be accessible anywhere, anytime, and will be capable of leveraging the converged network. Of course, this trend will create a new bottleneck in the form of securing network information flows. In order for companies to fully leverage the information embedded in their business and their relationships with suppliers and customers, security technologies will have to mature to

Convergence Is Dramatically Changing the World



Source: Acquiror, ThinkEquity Partners.

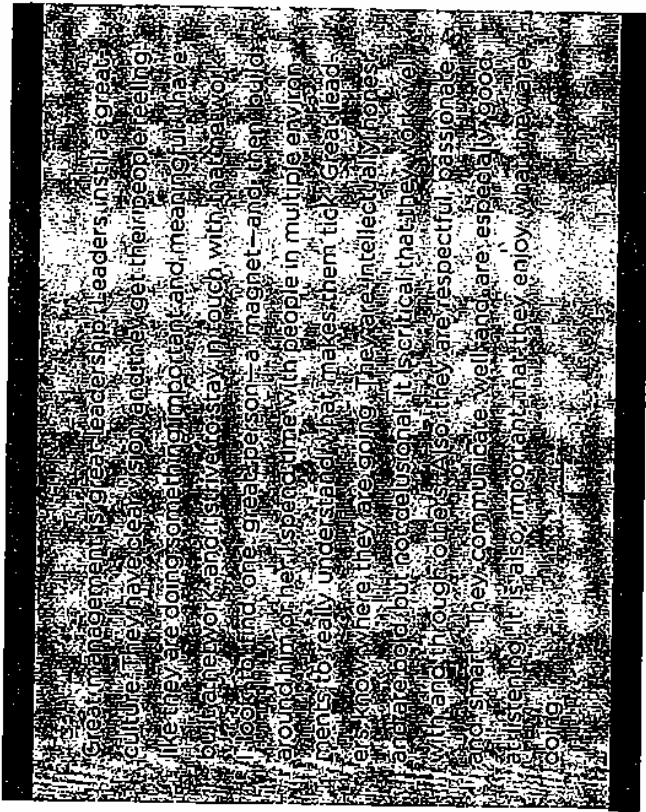
enable a higher level of comfort for companies to open their networks. With this final bottleneck broken, however, business users, consumers, and suppliers will expect or demand that information be available to them anywhere, anytime, and as a matter of necessity.

The convergence of communications is the emerging key to the "electrification" of the network, bringing computing power into the real world, closer to where business decision making, job functions, and consumer and social interactions take place. The initial applications of the converged network and technologies such as VoIP and tags will deliver value through replacing today's technologies, but will ultimately help to define how business is conducted tomorrow. Again, underlying the drive toward convergence is the goal of wider collaboration and the increased recognition that linked knowledge is of far greater value than disconnected knowledge. Investors should be looking for smart and integrated technology that solves problems and delivers return on investment that is made possible only through convergence.

## STAR GAZER

### DAVID SPRENG

founder and managing general partner, Crescendo Ventures  
 David Speng, venture capital investment firm Crescendo Ventures has more than a billion under management and offices in Palo Alto, Minneapolis, and London. He is a co-chair member of the World Economic Forum Working Group on Nurturing the Early Stage Investment Climate in China and a member of the board of the National Venture Capital Association (NVCA). He has been named to the Forbes' Midsize list of top venture capitalists. Also David about the importance of managers in the early stage of a company. With David Speng, visit [www.findingthenextstarbucks.com](http://www.findingthenextstarbucks.com)



## → MEGATREND 6: CONSOLIDATION— MAIN STREET VERSUS WALL STREET

"History doesn't repeat itself, but it rhymes." —MARK TWAIN

The story goes like this: Boy gets out of high school, maybe a state university, and goes to work at the first job he can get. He realizes quickly he is pretty good at business and hates working for somebody else, so he starts a business by getting a second mortgage on his house, borrowing from his in-laws, maxing out his credit cards, and/or raiding his children's college fund.

He works around the clock—six, often seven, days a week. His wife takes care of the house, but also helps out at work, doing whatever needs attention. After surviving a number of near-death experiences, the business is going pretty well. He's not taking any big salary, but he can pay all the bills and is expanding the business. Excess profits are plowed back into growth.

Despite the fact that he went to public schools, he sends his three