

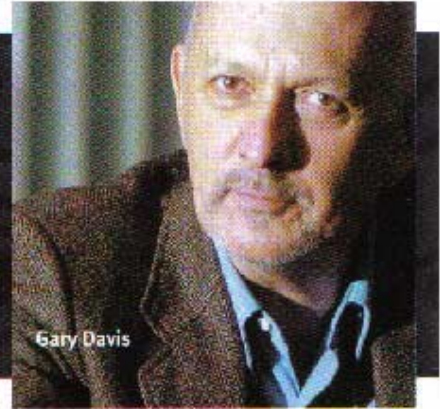
"Time for an Upgrade..." article, below, written by Jeff Pappone

# Time for an Upgrade:

Plenty of finger pointing, few easy solutions for tech sector labour woes

By Jeff Pappone

Photos by Darren Brown



Gary Davis

*Editor's Note: For this edition of the Technology Industry Guide, we offer an abridged version of the Time for an Upgrade series that was published in the Ottawa Business Journal in five parts earlier this year.*

With Ottawa's technology sector getting back on the boil, the lean years for many technology workers have finally ended. Unfortunately when change comes, some former employees inevitably get left behind.

While the reasons remain varied - finding yourself still looking for work when the rest of the sector seems to be chugging along can be frustrating at best.

Some experts say that the sector faces the same sort of squeeze that hobbled growth before the bust in late 1990s, but others suggest that the shortage is a by-product of employers' reluctance to work with the available pool of talent.

Shortage or not, Gary Davis, executive director of the Ottawa Talent Initiative, insisted that there are plenty of jobseekers on the market with skills that can easily be transferred to new areas.

"Employers also got into the habit of waiting to get what they want because it's been a buyers market for the past four or five years and they are looking for a 100-per-

cent match. So, those two together have created this situation. I hope that as companies begin to compete for workers, it may alter their attitude," he said.

"Not only are there still people out there but there are some highly qualified people who are not working right now, it's just that their resumes don't match with what the companies are looking for."

The irony is that employers who are unwilling to retrain an experienced worker to a new task are also happy to let a job remain unfilled for six months, even though an available prospect could often adapt to the new position in half that time, Mr. Davis added.

Ontario Minister of Colleges and Training Chris Bentley sympathized with the plight of unemployed workers and admitted that part of the problem is that many inside and outside government simply "assumed that people would find their way."

He acknowledged that the current situation could quickly become frustrating for people trying to return to the job market, but he also expressed no doubt that shortages already exist.

"More and more, there is a realization that in some areas we have a skills shortage and that this will accelerate over the years," Mr. Bentley said.

"The flip side of that is that almost 80 per

cent of the jobs we're creating require post-secondary education or enhanced skills training, but only 50 per cent of those eligible are going on to post-secondary education or skills training."

The recent report from the Ottawa Centre for Research and Innovation, Report 2005: Economic, Technology and Education Indicators for the City of Ottawa, backed up Mr. Bentley's claim. It pointed out that the city's strong employment growth has helped push the unemployment rate to its lowest in four years and predicts huge shortages on the horizon.

OCRI chief executive Jeffrey Dale added that, while reintegrating into the workforce sometimes involves upgrading those hard skills, quite often it also involves simple things that are often taken for granted, such as communications and interpersonal skills.

"There are still a lot of people who are underemployed - and don't get me wrong, we understand that, but, at the same time, the tech companies have been able to have a job requirement and have the pick of the cream of the crop," he said.

"They still are but I think the crunch is going to start to come where they are going to say 'who can I bring on that I can retrain?' What's going to be important at that time are the soft skills that people have."

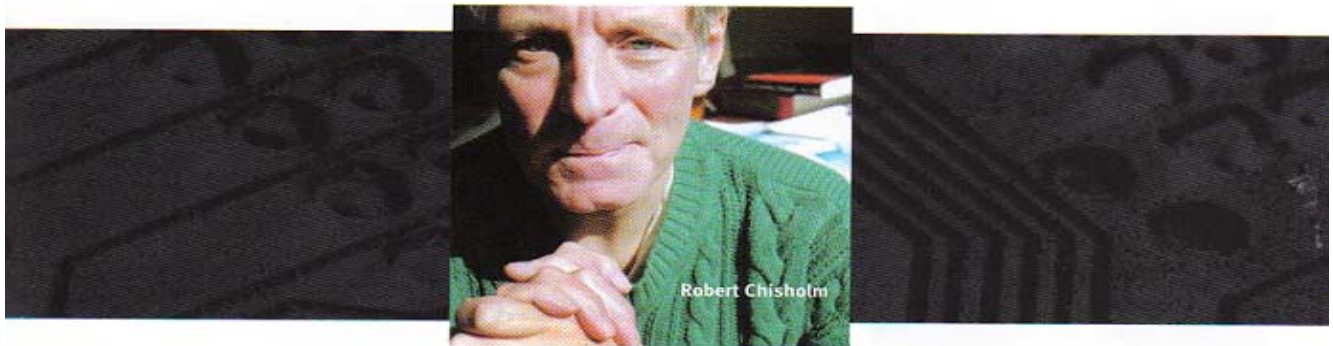
But figuring out which skills are needed

requires good data, something that doesn't really exist in Ottawa today.

### Contradictory messages

Unemployed technology worker Robert Chisholm stressed that industry officials simply continue to play games with numbers and use the claims of skills shortages as a bargaining ploy when dealing with government.

"The skills shortage phenomenon is partly the tech industry's own making in that they are rejecting almost everybody who applies for jobs based on not having exactly the skills that they want," he said.



"This in turn becomes the reason for them to claim, for example, that large numbers of immigrants are needed from overseas. The other thing that comes into play is the unwillingness of employers to retrain people."

A mechanical engineer by trade, Mr. Chisholm trained to become an information systems designer eight years ago, but never got a job in the field. His only experience in technology was a 10-month stint with JDS Uniphase in 2000-2001 as a low-level production inspector.

Mr. Chisholm asserts that saying there's a skills shortage in the high-tech industry sounds completely counterintuitive to unemployed technology workers confronted by rejection at job interviews or watching work constantly outsourced to cheaper labour pools in other countries.

Part of the problem is also the lack of venture capital flowing into the city. In 2000, Ottawa companies attracted \$1.35 billion, and the volume steadily declined in the years that followed. While it bounced up in 2005 to \$361 million from the low of \$248 million in 2004, Ottawa technology companies are essentially employing the same number of people as in 2000, but with about 25 per cent of the investment.

In the meantime, the Ontario government has moved to introduce programs designed help older workers reintegrate into

the market. A recent labour market development agreement negotiated with the federal government provides for additional funds and one of the target groups is the more difficult to retrain or place worker such as the older worker.

"I think there's been an issue out there for quite some time that hasn't been addressed by government. So we're soon going to have the capacity that we did not have historically to address that issue," Mr. Bentley said.

There will be a substantial investment into infrastructure for skills training, with

the funds growing to \$314 million annually in the fifth year of the program. In addition, the government will invest \$6.2 billion over five years in college and university education as part of its Reaching Higher plan to train workers with additional skills, including high tech. Mr. Bentley hopes to integrate the federal programs and create a "one-stop workplace skills training."

But in order to ensure workers get the right upgrades, Edward Jackson, chair of the Carleton Centre for Community Innovation, suggested that a permanent, detailed database that outlines the evolving supply and demand when it comes to tech skills would be a critical asset for the region. Mr. Jackson is co-author of the June 2005 study "Steering on Black Ice: The Continuing Search for Sustainable Livelihoods in the Ottawa Tech Sector."

The Ottawa Talent Initiative would be the best choice to not only maintain the data, but also use it aggressively to put local talent to work and to ensure business success.

"Somewhere between \$500,000 to \$1 million would be sufficient to do a comprehensive survey of tech skills, but then five to 10 years of operational funding would be needed to actively use the database to match workers with opportunities and to design new training programs to meet emerging

needs," Mr. Jackson said.

"Investing in this element of labour-market infrastructure is a bit like investing in a local network of roads or telecommunications lines. We need this infrastructure to function successfully in the 21st century. End of story."

Mr. Chisholm agreed, saying that without the kind of database suggested by Mr. Jackson, employers can't even pinpoint the actual skills that are in short supply, which essentially makes the retraining process an impossible task.

"There seems to be a lack of appreciation for the necessity of forecasting so that we

will have a reliable idea of the skills we will need in the years and months ahead," Mr. Chisholm said.

"The way things are, it's virtually impossible to see clearly what skills will be needed in say six months to a year, or even in two, three or four years time. How therefore is it possible for somebody to contrive to be exactly the right person at the right time to be an exact match for some future set of skills? It just isn't possible."

### New labour landscape

One huge shift seen in Ottawa since the boom of the late 1990s is that the majority of the workforce is now employed by a host of small- and medium-sized operations rather than a few large companies. In 2000, more than 50 per cent of the 79,000 technology jobs were with Alcatel, JDS, Mitel and Nortel. Today, they employ less than 15 per cent.

The 30,000 people laid off from those companies in the lean years had often been there for many years and worked as part of a distinct division with highly defined jobs. Few had experience with smaller entities, which are now doing most of the hiring.

In addition, the type of employment has also changed, with contract work, outsourcing, and self-employment often taking over from the traditional full-time, permanent job

When it comes to finding long-term solutions, Mr. Dale agrees that helping small high-tech companies in the rapid growth phase draw up human resources plans would help point people in the right direction when they upgrade their skills.

"Some of these companies don't even have the infrastructure to have an HR department. They could identify some of the older skills or mature skills that could be applied to their job requirements and what kind of upgrade would be required to meet it," he said. "Let's face it: People aren't going to be heading back to school in the forties and fifties."



That statement rang true to Srdjan Marjanovic, who simply wanted someone to listen to his story when he sent a short letter to the *Ottawa Business Journal* outlining his difficulties in finding work.

Instead, his succinct missive sparked an increasingly acerbic debate over skills shortages.

"I didn't expect it to spark all this interest, but I am glad it did because the *Ottawa Business Journal* was the only one that has looked into it. There were a couple of stories a few years ago about the plight of the unemployed worker, but not much," he said.

"Constantly hearing that your skills are out of date is pretty tough morally and it is frustrating. Basically, I think there is a perception in industry that skills are simply the tools that you can use, but skills really are about the ability to acquire knowledge."

After coming to Canada in 1993 from the former Yugoslavia, Mr. Marjanovic soon found work in the technology world with Nortel and later with Siemens as a software configuration manager. His employment ended when the company closed its Ottawa operations three years ago.

While Siemens provided a "generous package" to its employees, he began the arduous task of finding work in a downturn never thinking he'd still be looking three years down the road. Although he has been

approached by recruiters, they rarely offer more than a few months work, which is always at low pay.

Paul Swinwood, president of the Software Human Resource Council (SHRC), insisted that the problem for people such as Mr. Marjanovic lies in the simple fact that, while the level of IT employment has rebounded, the definition of the ideal worker has shifted. The pure technical developer is no longer the preferred hire. Jobs for these techies will not be returning in the numbers the city saw during the pre-bust period.

"The challenge is that our Canadian economy and the business in Canada have

ble work path to avoid the often volatile technology sector, Mr. Swinwood suggested.

While Canada is "pretty close" to regaining its previous level of IT employment, SHRC's detailed analysis shows that the jobs have moved from the technical inventor to areas where people make the technology work for customers.

This more focused demand, compounded by lower enrolment, has high-tech companies desperately looking for people who have "the package," who understand the technology side, but also have honed business and communications skills.

To help ease the pressure, the Canadian Advanced Technology Alliance is working

changed radically since 2000 and the pure heads down creating product in the telecom sector have gone away - they just don't exist anymore and they will not come back to the scale that they were," Mr. Swinwood said.

But where new workers will be found remains unclear, especially if companies continue to avoid hiring people such as Mr. Marjanovic.

And, judging by the numbers released by OCRI in its 2005 report on economic, technology, and educational indicators, experienced workers who can contribute should be in high demand.

Last year, the region's technology community grew to a record 1,811 technology companies and 76,126 workers. The numbers seem to back up claims from unemployed workers that companies continue to look for a select few rather than hire someone who can grow into the job.

A recent study of university enrolment by SHRC also showed that the number of students choosing a pure computer technology-related education is shrinking. It found decreases in undergraduate computer science of 13 per cent, a 30-per-cent drop in graduate computer science with specialization, and a further 19-per-cent drop in undergraduate computer engineering.

The loss of interest may simply be fallout from the bust as students choose a more sta-

with a number business and education partners on a program that identifies how skills have changed and works with the next generation of technology and business leaders to get them prepared for their careers.

#### People skills paramount

"Time and time again people skills are more important and it's not enough to be technologically adept, you have to know how to resolve conflict and how to work in a collaborative environment and I think that's a big change in mindset," said CATA president John Reid.

"You can have a set of technical skills but companies tend to hire current skills, so you can see the amounts you invested in your education and certification and still have a miss match. There will be a cross-section of the tech worker population that will believe that there is a contradiction here, because they have skills but no jobs, but they don't have the ones that are driving the future."

And, as the sector continues to become more specialized in technology development and companies target a small sliver of a vertical market with an extremely specific application, the problem will only worsen. The shift means that companies need highly specialized skill sets. Workers may not have the mobility previously experienced in the old telecom dominated world and become

even more vulnerable in a soft job market.

While Mr. Reid says that people who have continually invested in upgrading their skills are the ones who will have the best opportunities, Mr. Davis insisted the onus shouldn't lie solely with the worker.

He feels the industry needs to figure out where it is going and what it needs to get there, and then convey it to workers. This would allow the sector to perform some workforce planning and projections, which would ensure that workers develop a strategy to ensure they concentrate their upgrading efforts in the right areas. In the end, it would create a win-win situation for individuals and companies.

are hundreds of thousands of unemployed workers, but we still have a skill shortage."

CATA surveyed Ottawa companies last July in a "qualitative" study to uncover the attitudes toward hiring in the region's boardrooms. While it found that almost nine in 10 would hire in 2006, about half also felt they'd have trouble filling jobs.

The biggest difference on the job market between the late 1990s and today is that companies are no longer looking for the "cannon fodder" with basic skills, they only want to hire people with highly specific talents that push technology forward.

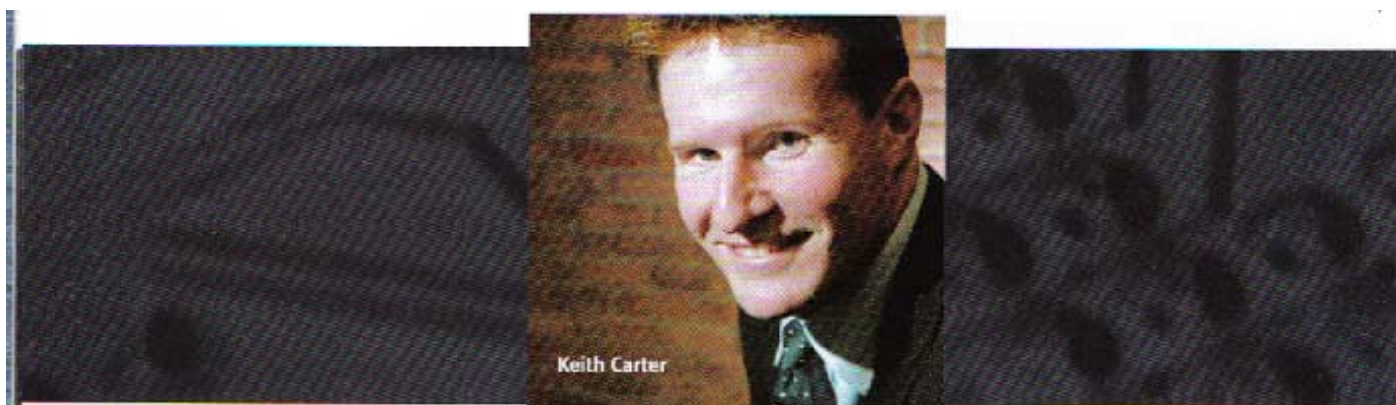
Essentially, the industry continues to

board when skill-set requirements change, they will certainly change rapidly and frequently," he said.

The other problem for unemployed workers is that companies who are going to invest in training and development for a new hire are more likely to undertake it with a new graduate. Recent graduates have the potential to be an asset for decades, while older workers may only have a few years left in their careers.

#### At the table

Mr. Jackson suggested that finding a workable solution to the problem starts with gathering all the players together to discuss skills shortages and find ways to learn from



"There are a lot of different skills in demand because we are no longer Nortel-centric and that's not what many companies are after. But if you are running a company that is working on one technology, do you see that and care about the industry overall? I don't know the answer to that," he said. "But, we need to develop some kind of new workforce model that is based on today's circumstance - all the models we have are based on the old economy, not on something that is this focused and this changing."

But with more than a few conflicting stories, studies, and surveys published in the past few years, it's completely understandable that many simply don't know what to believe or what to do.

Keith Carter, Procom Consultants Group vice-president of business development and a board member of the Canadian Advanced Technology Alliance (CATA), agreed that just about anyone could find statistics to back up their position.

But he suggested that the perception among the sector's decision makers is the only important factor in the equation.

"Understanding the labour market that you are in is very important because it is the perceptions that will drive the attitudes," he said.

"What companies are really doing today is acquiring the 'dream team.' That's the way that a lot of executives are looking at it - there

focus on finding the top talents that are in short supply, while overlooking the workers whose skills may be less that up-to-date.

"It's a harsh reality but if you are a CEO with a very defined budget - much different than it was in the year 2000, you are going to do everything you can to acquire the talent you need today," Mr. Carter said.

"People are sitting out there unemployed, but there are jobs turning over every single day in the marketplace. Unfortunately not everyone is suited to every job - that's as politically correct as I can put it."

The reason is simple, says Mr. Carter: In a market where leading technology becomes obsolete in less than two years, the people who create it also suffer the same fate. Essentially, it may be time for some to realize that the industry has simply passed them by.

And as more companies continue to pursue an ever-shrinking pool at the top end of the spectrum, there's no doubt that talk of shortages will continue.

Mr. Jackson put the blame squarely on a technology industry that has continued to demand a more specialized skill set from workers, which in turn puts many at a much higher risk of being left out in the cold.

"The tech industry is becoming the author of its own misfortune. If highly specialized workers are simply thrown over-

the damage caused by downturn.

Social organizations that have had to "clean up the mess" caused by the tech sector bust, from the food banks to the Community Foundation, should also be included along with all levels of government.

"The conference I'm suggesting would be a place to air these issues, confront the real obstacles facing entrepreneurs and workers, and find some solutions that build businesses and our community at the same time," he said.

"Other tech centres are wrestling with these challenges: Let's find out what they're doing and they might be interested in learning about (the Ottawa Talent Initiative) and other things we're doing here, as well."

An October 2005 study of 25 technology centres by researchers at the University of New Hampshire found that greater diversification enabled regions to more effectively manage the ebb and flow of the high-tech industry.

Encouraging expansion outside the tech sector would go a long way to cushioning the region from the effects of a downturn by strengthening areas such as tourism and non-tech manufacturing. Mr. Jackson suggested the Ottawa Manufacturers' Network is one area needing particular attention.

"Only one-third of all manufacturing in our region is done for high-tech; the rest is produced for diverse sectors. The stronger the non-tech manufacturing sector, the bet-

ter our regional economy can withstand the inevitable technology downturns in the future," he said.

Conference or not, it may simply be too late for some. With today's technology companies attacking specific markets with targeted applications and increasing their reliance on outsourcing for non-critical areas, the chances for those shut out of the recent job surge will continue to be slim. Today's typical technology company employs between 60 and 100 workers and few will grow to the sizes that were seen in the late 1990s.

While a conference would help define the issues, identifying who is actually responsible for helping workers update their skills and find ways to re-enter the workforce is a subject of fierce debate.

Mr. Carter insisted that most companies displace individual employees for economic reasons and deeming them responsible for retraining would double the pain for the enterprise.

He insisted that helping these workers is a social responsibility



for governments, not industry.

"This isn't Utopia, this is a free market economy. It's a very, very difficult situation and the fact of the matter is that there are some people in the technology sector who no longer have the skills necessary to find sustained work," Mr. Carter said.

On the other hand, Mr. Jackson suggested that the problem could be partially alleviated by rewarding the industry for investing in the region's human resources through incentives, such as a more favourable tax treatment for companies that retrain older workers and put resources toward continuous skills upgrading for employees.

"If it is all up to the worker, as apparently CATA is saying, and certainly some, but not all, business leaders are also saying, we have some serious issues to deal with," Mr. Jackson said.

"Even if workers are successful in continuously reskilling themselves, and often moving from firm to firm, as they and their families mature, they will need important things: eyeglasses, dental plans, other forms of insurance, pension plans - not to mention decent, liveable wages."

### Emotional pressure

And, while it may creep up unexpectedly, the feeling of helplessness and the resignation that they can't do the right thing begins to take its toll on the unemployed technology worker.

For those who have been out of work for years, keeping things in perspective and figuring out ways to get back on track become increasingly difficult as the time drags on.

Gerry Smith, vice-president of organization health for Warren Shepell, said that, while there are many factors that determine how well someone reacts to job loss, one thing is clear: The longer the person remains without a job, the harder it gets to find one.

"If the period without work goes on and on, then their self-con-

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**Robert Chisholm at federal election all-candidates debate in January criticizing how job losses in Ottawa's tech sector have been tracked.**

confidence level gets lower and lower as time goes by," he said

"The more rejection they face in the interview process and the more unable they are to get back into their work, the greater the possibility of psychological difficulties."

Warren Shepell helps companies provide services to promote the emotional and psychological well-being of their employees.

Because high-tech workers pride themselves on their skills and abilities, they are deeply affected when they are told that they no longer have the right stuff.

A technology worker who continually hears from potential employers that their skills are no longer current would soon begin to experience severe self doubt, which might negatively influence their performance in an interview situation.

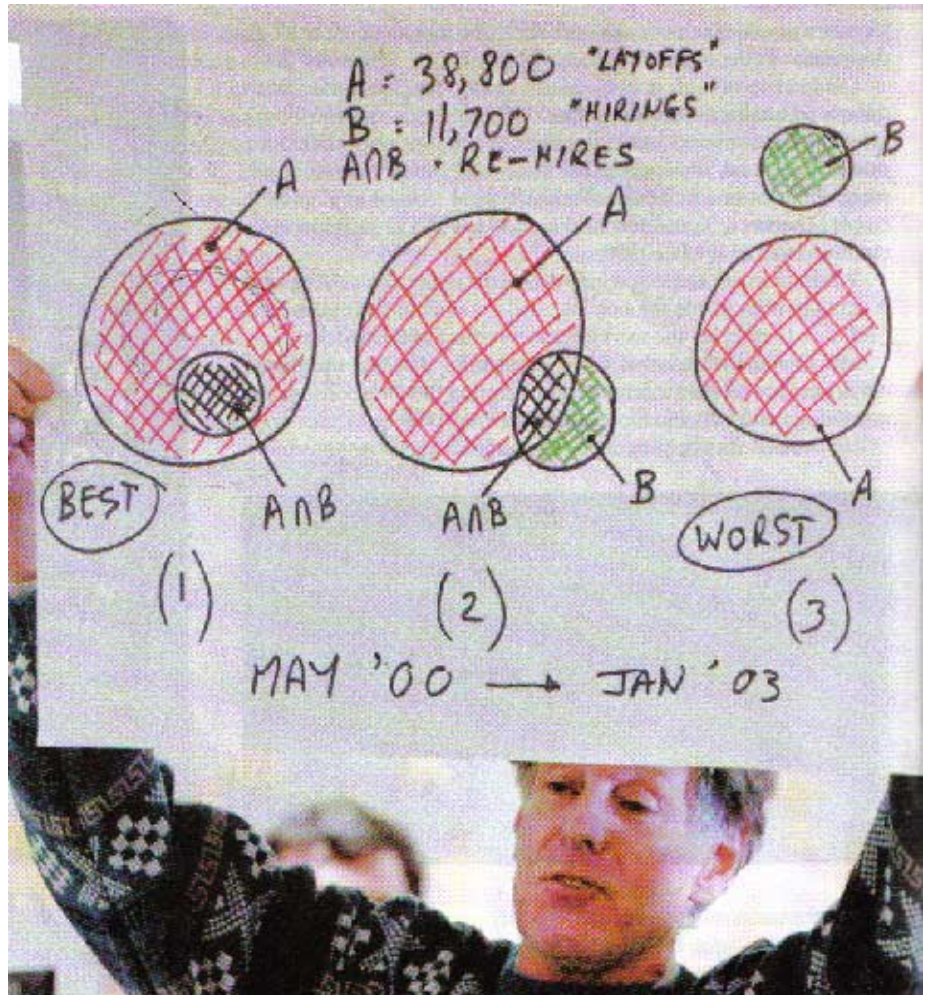
"Their self-confidence would go to rock bottom. Telling a technology worker that they don't have the skills makes them feel that they are obsolete. So, it's very difficult to get back on track psychologically," Mr. Smith said.

"There's a loss of identity and when that happens, their confidence, their esteem, and their ability to fit in also goes. If you are told you don't fit in terms of skill and ability, it's creates a huge identity crisis for the poor person who is looking for a job."

When a person cannot deal with the stress, anxiety moves in to create a whole litany of difficulties that only exacerbates the problem. Mr. Smith has seen it deteriorate into substance abuse, heightened anger, and a number of psychological problems.

To avoid getting to that point, people who lose their jobs need to understand that managing it actually begins the day that they find out that they will be out of work.

"The time it takes depends on the



resiliency of the person grieving, but it also depends how important the job was to them," Mr. Smith said.

"It's very similar to a grieving process and you have to recover from the loss."

Like any personal experience, some may bounce back quickly while others end up stewing in sorrow for months, and sometimes years, after a layoff.

Richard Eaton, district general manager for DBM, which specializes in helping workers rejoin the workforce, said the effects

of a layoff can be far-reaching, which may diminish the job seeker's ability to project the right attitude when looking for work.

"Basically, it affects their mental psyche, personal self esteem and psychological well-being. When people feel like they don't have much time and they are running out of cash, that tends to have an impact on the situation as well," he said.

"A lot of this is attitudinal - it's the ability to learn new things, to adapt to new environments and to change and do what needs

to be done. And that's what organizations are looking for."

When job seekers are talking to prospective employers, the key is to ensure that they demonstrate the abilities that the organization values. In many cases, it may be as simple as doing a bit of research on the company and practicing answers to possible questions prior to an interview situation.

### The age bias

But that may be easier said than done. Workers who have been with a company for 15 years and had expectations of staying for the remainder of their career usually have a much more difficult time.

A 1999 study by Human Resources Development Canada also found that older individuals face a number of employment barriers that their younger counterparts do not experience. The result is that many older job seekers quickly become discouraged when it comes to their prospects.

Mr. Smith was not surprised that the unemployed workers who spoke to the *OBJ* when the Time for an Upgrade series was first published had more than 15 years experience and were in their late forties or early fifties. Warren Sheppel has found that once a worker reaches 50, there is a tendency for employers to overlook the value they have to offer.

"The person who is in their mid-fifties

trying to get into a new job has a difficult time, especially if they are up against someone who is 20 years younger. It makes it really tough," he said.

"And yet when you look at the demographics in Canada, it is the people in their fifties who we really need to retain because we know there are not a lot of younger people coming up through the schools these days. Somehow employers haven't bitten on to the fact that they can't keep letting go of valuable knowledge, culture, and experience that the people in their forties and fifties have."

When things are not going well in the job search, sometimes a few simple things can help rebuild esteem and boost confidence.

Sometimes finding work in a completely different field may be enough to help get things back on track. Finding a part-time job will also get people out of the house and alleviate feelings of loss.

On the other hand, unemployed tech workers going out and volunteering or upgrading must also ensure that they reserve the majority of their time for their primary job search.

A number of years ago, Mr. Smith found himself stacking shelves at a retail outfit following a job loss. The experience helped him re-evaluate his future in a situation where there was no need for taxing "mind work."

"Remember that a job just isn't just

about putting money on the table, it's about doing something where you're needed, wanted, and accepted," Mr. Smith said.

"I always tell people not to sit around and do nothing - go out and do something. Volunteerism can be a great way of achieving some satisfaction. The more you sit at home and ruminate, the worse it will become."

Getting out will also ensure that connections to people working in the technology community remain fresh. Networking is important because in good times or bad, it's still the best way to find good job prospects, Mr. Eaton said.

The problem is that when people have been out of work for a longer period, they tend to forget that most job leads come through personal connections rather than newspaper advertisements or Internet job boards.

"I can understand how it can happen but far too many people spend too much time in front of a computer, reading a host of newspapers, targeting placement agencies and search firms, and sending out targeted letters - those four areas represent less than 15 per cent of the marketplace," Mr. Eaton said.

"You have to spend the majority of your time networking: It is still the manner in which employers want to hire, because there's good fit between the organization and people." .