

ISRAEL HIGH-TECH & INVESTMENT REPORT

A MONTHLY REPORT COVERING NEWS AND INVESTMENT OPPORTUNITIES JOSEPH MORGENSTERN, Publisher
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The Global Chaos and Israel



More and more people at this end of the world ,are wondering as to how the American financial crisis will affect the local economy. The Governor of the Bank of Israel Prof. Stanley Fisher

has assured us, that our economy is stable and will remain so. However, at least two major banks, Bank Hapoalim and Bank Leumi have announced that so far the losses connected with the fall of Lehman Brothers alone, have totaled more than \$200 million. Other investment houses have not reported losses but we can rest assured that they have also suffered from the debacle.

The fallout may have a greater effect on the economy if the American consumer begins to buy less. "The increase in exports this year is surprising since theoretically, the appreciation of the shekel and the global slump should have resulted in a drop in exports," said economist Rafi Melnick, deputy president of the Interdisciplinary Center in Herzliya. "The explanation is that specific types of exports are growing." However, the export statistics relate to data from the beginning of the summer.

America, India and China are the leading customers for Israeli goods, especially high-tech and defense materiel. The demand for these goods will likely recede as time moves along, as both countries

achieve a high level of armaments. Another factor is the surprising strengthening of the Israeli currency which makes goods more expensive Israel is a major exporter of finished diamonds. The demand for diamonds is expected to drop sharply.

Though there is no major concern about a spillover from the American financial crisis there are

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some indications that all is not well or as was. Perhaps the first sign, from an industry insider, that the venture capital industry, has almost completely closed the tap on new funding. They are assuming a wait and see attitude. Their main concern being that they may lack funding to back existing investments.

The other negative indicator is a lack of interest in the Tel-Aviv Stock Exchange. Initially, many cancelled their pension funds and other long-term investments. The head of a financial management company conceded that he doesn't remember a decline of up to ten percent, in the month of September. The fall was mainly due to a steep decline in the price of bonds a, a main component of pension fund holdings. It is also possible that one of the country's large real estate companies, with international holdings, may run into difficulties.

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On the more positive side, is Israel's proven ability to adjust to changing economic conditions. Israel does not produce automobiles where the production cycle is four years. Most high-tech companies are able to adjust their production to changing demand..

Israel's economy has grown by more than 5% annually, over the past three years. Indications are that this figure will fall to a still respectable 4.2%.

Israeli investors are a nervous lot. In September alone there was massive selling of long-term savings instruments as the public seemed to lose confidence in the stock market. On the other hand, there have been major gains over the past two years and the investors were selling profits. We spoke to an American, the head of an international organization, who bemoaned losses in his portfolio. "This definitely puts off my planned retirement date," stated the American.

However, experience has proved that Israel has been flexible and should withstand even an extended global recession. We are reminded that during Israel's several wars the economy never stalled. Factories did not close and companies delivered international orders.

A sign of confidence in the future was the presence of more than 40,000 Israelis who came to hear a

concert by the Former Beetle Sir Paul McCartney They paid up to NIS 5,000 (\$ 1,400) a ticket. They seemed to have confidence in the future.

The third eye in your car



Motor vehicle "accidents" are the leading cause of "death by injury" in the world today and are recognized as a major and growing global health burden.

According to World Health Organization (WHO) estimates, in 2002 nearly 1.2 million people died in road crashes worldwide and between 20 and 50 million were injured.

More than 40,600 people are killed in traffic accidents in the United States alone.

So when new technology is developed that promises to lower traffic death rates, it attracts serious attention.

A computer chip and a tiny camera not much bigger than a dime installed on the windshield behind your

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.Joseph Morgenstern, B.A. Chem
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Debbie Mor
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Graphics Consultant
Daniel Morgenstern
Subscription Inquiries
Tel-. +972-3-5235279 Fax. +972 3-5227799
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car's rear-view mirror may now make the difference between life and death.

The Netherlands-based Mobileye Vision Technologies has developed an inexpensive hi-tech driver assistance system called Mobileye AWS (advance warning system), which can provide drivers with early warnings of potential road hazards.

Founded by an Israeli, with its R&D based in Israel, the company says the system has the potential to lower accident rates and teach people how to be "smarter" drivers.

The images generated by a front-facing camera are analyzed by the system's computer chip, which has been "taught" to recognize potential hazards such as cars, buses, trucks, motorcycles and pedestrians, and uses audio warnings to aid the driver in recognizing and maintaining safe distances from these threats.

The aftermarket product line works day, night and in inclement weather, and features Forward Collision Warning that prevents collision with vehicles ahead by alerting drivers to both moving and stationary vehicles while filtering out cars in adjacent lanes that pose no threats.

Alerts are provided up to 2.7 seconds before collision - enough time to safely stop and avoid an accident.

For example, the system detects the distance to the vehicle immediately ahead - generally targeted as posing the primary threat. As the driver nears the vehicle in front of him, an image on the display panel changes progressively from green to orange to red.

Upon advancing beyond a minimal safe following distance, the driver will hear an audio warning announcing that he or she must reduce speed and fall back. The audio caution will cease the moment the driver steps on the brakes.

The company aims to provide optimal safety for every vehicle and not just for luxury cars. It uses inexpensive components to make it attractive both to automotive manufacturers and to the average car owner.

The final retail cost to the consumer is under

\$1,000. The company is not disclosing figures on how many units of the product it has sold to date.

The system is the result of a challenge thrown out to Mobileye co-founder and chairman of the board Prof. Amnon Shashua. After giving a lecture to one of the leading car companies in Japan, Shashua was asked if he would be able to develop an automotive vision system using two cameras.

Road testing of the system was conducted in Israel, Europe and the United States.

The company is currently running a pilot program with the Dutch government in which the camera has been installed in 2,000 trucks, with a view to having it fixed in an additional one thousand trucks.

As of 2007 Mobileye's systems have been installed in production vehicles on selected automakers' assembly lines in the hope it will eventually evolve into a standard auto safety feature.

The system has been installed into several models of BMW, Volvo and GM.

Mobileye Vision Technologies is also cooperating with insurance companies to bring down insurance costs because it does in effect prevent or at least reduce the number of traffic accidents.

Much like seatbelts, the company's product could one day be a compulsory safety feature required by insurance companies.

The product is currently sold in several countries, including the United States, The Netherlands, the United Kingdom, Australia and Chile, and is installed in both commercial and passenger vehicles.

Israeli airport tries shoe-scanning technology

Israel is leading the way in airport security with the unveiling of a new step-on scanner that spares travellers the nuisance of having to remove their shoes.

It is being tried at Tel Aviv Ben Gurion Airport, which already has a reputation for being one of the safest facilities in the world.

Airport security has been a top priority in the western

world since the September 11 attacks on America, but in Israel the issue has been at the forefront of security chiefs' minds for decades.

While the new step-on scanner must still be used alongside a raft of other security measures, analysts say that if it proves effective it could be rolled out in airports around the globe.

Highlighting its appeal, Nissim Ben-Ezra of Israel's Airports Authority said: "This innovation brings about an enormous logistical value as it significantly cuts down the discomfort and delays associated with standard shoe searches."

Black box for the enterprise protects data from terrorists, hurricanes

A new disaster recovery vendor is taking the concept of an airplane black box and adapting it to the enterprise to create a new way of protecting crucial data from natural disasters and terrorist attacks.

Axxana, an Israeli company whose CTO is a former IBM inventor, says it has embedded flash memory into a 400-pound box designed to survive fires reaching 1,700 degrees Fahrenheit, earthquakes, 30 feet of water, 500 pounds of pressure - essentially anything short of a nuclear bomb. Fitted with a wireless modem, antennas and batteries, the box can transmit data wirelessly after disasters even if it cannot be physically accessed.

"I think it's very telling of the times we live in that we would consider products of this type," says analyst Arun Taneja of the Taneja Group. Taneja says a business in New Orleans worried about hurricanes or one in Manhattan wary of another terrorist attack might certainly be interested in Axxana's technology, which is called the Phoenix - like the mythical bird that rises from the ashes.

Finance Minister assures the public

Finance Minister Roni Bar-On assured the Israeli public, that despite the current global financial crisis, Israel's banks would definitely not collapse.

Bar-On said that "based on examination, including one from today, the body overseeing the banks can state with the clearest certainty that the banks in

Israel are stable. As I see the situation, and I see it in figures, no banks will collapse."

Israel to buy \$15.2 bln in Lockheed fighters



The U.S. government said it approved the sale to Israel of 25 F-35 Joint Strike Fighter aircraft built by Lockheed Martin with an option for 50 more in coming years -- a deal valued at up to \$15.2 billion.

The Pentagon's Defense Security Cooperation Agency (DSCA), which oversees major arms sales, said the deal is vital to U.S. national security interests to assist Israel as it develops and maintains "a strong and ready self-defense capability."

Israel needs the aircraft to enhance its air-to-air and air-to-ground capability.

Lockheed Martin said it welcomes the decision. "As the first potential foreign military sale of the F-35, this would be an important first step in expanding interest in the Joint Strike Fighter beyond the U.S. government and eight international F-35 partner nations," said Lockheed spokesman Tom Jurkowsky.

Earlier the Pentagon approved up to \$330 million in three separate arms deals for Israel.

Scent on demand



A team of scientists at the Hebrew University of Jerusalem has found a way to genetically enhance the scent of flowers and implant a scent in those that lack one.

Smell plays an important role in our lives: It influences the way in which we choose fruit and vegetables, perfume, and even a partner. And yet, smell is not just what we smell with our noses, it's also what we taste, explains Prof. Alexander Vainstein, who is heading the team at the Robert H. Smith Faculty of Agriculture, Food and Environment. "Aroma is of major importance for defining the taste of food."

Scent in flowers and plants are used to attract pollinating insects like bees and beetles that pass on the pollen and help in the reproduction and creation of fruit. The intensity of the scent that the flower emanates is influenced by the time of day, depending on weather, age of the flower and the species.

In research that was published recently in the Plant Biotechnology Journal, Prof. Vainstein and his research assistant Michal Moyal Ben-Tzvi succeeded, together with other researchers, to find a way of enhancing the scent of a flower by ten-fold and cause it to emit a scent during both day and night - irrespective of the natural rhythm of scent production.

The development, which has been patented by Yisum, the Hebrew University's technology transfer company, is intended to be applied to other agricultural produce.

Utilizing natural components will increase and change not only the smell of fruit and vegetables, but also influence the commercial appeal of a wide array of produce.

The flower industry will also be interested in this development, explains Prof. Vainstein. "Many flowers that have lost their scent following many years of breeding. Recent developments will help to create flowers with increased scent as well as producing new scent components in the flowers."

Over a third of participants in Flowers and Plants Association surveys stated that scent influenced their choice of flower purchase. Floral scents are also one of the most popular smells and the perfume industry expends a great deal of effort trying to reproduce the authentic fragrance of fresh flowers.

Prof. Vainstein's lab is the only one in the world that researches both the scent and color of flowers. His greenhouse at the Hebrew University's Rehovot campus is full of genetically engineered flowers whose architecture, color and scent the researchers are trying to modify.

Israel is the Middle East's flower-producing superpower. Its flower, plant and propagation

material exports bring upwards of \$200 million into the economy annually. Israel is third only to the Netherlands and Kenya in supplying the EU with flowers. Each year, 1.5 billion stems are exported - twice as many as 10 years earlier.

Israeli engineer wins Swedish technology prize



Israel's Itai Danielski, 35, was recently awarded the Sweden's prestigious "Stora Property Priset 2008" (Large Property Award), along with a \$7,600 prize.

The Stora, sponsored by the International Services Group ISS, rewarded student essays with innovative thinking in the field of property management.

Danielski has a Bachelor's degree in Physics and BSC in Materials Engineering from the Technion, and a Master's degree in Sustainable Energy Engineering from the Royal Institute of Technology in Stockholm. He shared first place with the co-author of his paper, Jonas Kunze, from the University of Uppsala.

Cryopreserved liver survives first animal transplant

Israeli scientists have successfully frozen, thawed, and transplanted a liver from one pig into another. The technology developed at the Agricultural Research Organization in Bet-Dagan, and now pursued by Core Dynamics, an Israeli company also based in Orangeburg, NY, uses slow, controlled cooling of tissue to preserve it for future use.

The scientists flushed the blood from the pig's liver, cooled it, and then encased it in a pair of hollow brass cooling blocks attached to a supply of liquid nitrogen. The device was developed by Core Dynamics, a company founded in Ness Ziona, Israel. It cooled the liver at a rate of 0.3 °C per minute bringing it to a temperature of -20 °C in about an hour and a half.

The team then immediately let the liver thaw for 20 minutes before transplanting it into another pig,

plumbing it in as a second liver. There it rapidly recovered its red color, an indication of blood flowing through it, and began producing bile - both signs of health and normal function. The pig was then killed after about 2 hours and the auxiliary liver analyzed, revealing that the cells were alive (Rejuvenation Research, DOI: 10.1089/rej.2008.0706).

B-G airport to introduce pilot identification system to prevent terror

Three foreign airlines flying to Israel are to shortly begin using the pilot identification system known as Code Positive to prevent terror attacks using airplanes. The system allows ground systems to identify aircraft that have requested entry to its airspace by means of a secret code issued to pilots.

Some 2,000 pilots of Delta Airlines, Air Canada and Ethiopian Airlines are to be issued with the code. It recently ended a trial run on 500 flights, and successfully identified the planes in 90 percent of the cases.

Transport Ministry Director General Gideon Siterman informed the Federal Aviation Authority's deputy director Dorothy Reimold and Kip Hawley, administrator of the Transportation Security Administration of the initiation of the system.

The cost of the system is estimated at about \$25 million.

Six airlines participated in the trial phase: El Al, Air Canada, Delta Airlines, British Airways, Air France and Ethiopian Airlines.

The system, which was developed by the Israeli company Elbit Systems, is based on the requirement for the pilot to insert a secret code by means of a smart card before entering Israeli airspace. The code is then verified by a special ground system.

All international airlines will eventually be required to install the system.

At the time the trial stage began on the Code Positive system, Transportation Minister Shaul Mofaz said: "Code Positive would prevent the need to return

flights to their point of origin or have them land at an alternative site due to lack of identifying data. It will also reduce the need to scramble fighter jets to intercept flights where data is lacking."

Novel method for Swift pattern recognition

Yisum, the Technology Transfer Company of the Hebrew University of Jerusalem, introduced today a novel method for real time, automatic, generic and robust pattern matching. The novel algorithm, developed by Professor Michael Werman and Ofir Pele, both from the School of Computer Science and Engineering at the Hebrew University of Jerusalem, enables very rapid recognition of a particular pattern in a fraction of the time currently available. The novel algorithm can be used in computer vision software for managing images, in robotics as a simple and fast method for vision-based systems used for assembly manufacturing and inspection, as well as for face recognition and additional security applications. The findings were published in the journal IEEE Transactions on Pattern Analysis and Machine Intelligence

"This novel method enables ultra-rapid pattern recognition which is highly robust and reliable," said Nava Swersky Sofer CEO of Yisum. "The algorithm can enhance various imaging and computer vision applications that are becoming an ever-growing part of everyday life. For example, it can be helpful in quick information retrieval from large visual databases. One such application can be photographing a restaurant and immediately accessing relevant reviews. In the field of security, the algorithm can be used, among others, for surveillance purposes by finding a suspected person in a video movie."

Many applications in image processing and computer vision require finding a particular pattern in an image, a process termed pattern matching. Scanning the entire image, and evaluating a distance measure between the sought pattern and areas, or windows, in the image, typically perform pattern matching. The novel algorithm is much faster than current methods because it does not attempt to estimate the distances for non-similar windows, but only decides that these windows are non-similar. The reduction in running time is due to the fact that unnecessary information is not computed. The

method is applicable to any pattern shape, even a non-contiguous one, and is automatic and robust, enabling detection of low quality patterns, rotated patterns or patterns that are partly occluded.

Venture capitalists expect high tech salary cuts



Q3 VC Indicator survey: 81% of venture capitalists believe that the overall economic climate will worsen over the next six months.

81% of venture capitalists believe that the overall economic climate will worsen over the next six months

- the highest rate of expectation for the economic climate to worsen since the fourth quarter of 2001. However, 82% of respondents believe that the pending crisis will not be as severe as the dot.com bubble collapse of 2000.

88% of respondents predict that venture capital will face "harsh times" in raising new funds. 70% of respondents predict that high-tech companies' revenue will decline slightly, while 30% predict a sharp reduction. 61% of venture capitalists fear that the Wall Street crisis might prompt limited partners to try and withdraw their venture capital commitments.

Deloitte Brightman's Asher Mechlovich says, "As the effects of the financial service sector turmoil continue to spread into other regions and markets, Israeli high tech and venture capital industries gear up for some rough times."

The survey states that 64% of Israeli venture capitalists advise their portfolio companies to cut expenses and make necessary adjustments to the new economic climate. 29% of venture capitalists say that their fund started prioritizing which of its portfolio companies it might abandon and write down as losses if the situation deteriorates, while 21% of respondents say that their fund will probably do so soon.

"Start-ups need to cut expenses and try to be cash positive. Start-ups can survive, and even thrive, during volatile economic times by building business models that are more responsive, adaptable, and efficient with resources," stated .Mechlovich.

Galcon's remote control of irrigation systems



Galcon Computerized Control Systems - part of the Whitewater Technology Group and an acknowledged global leader in the field of irrigation - recently introduced its advanced solution for the remote management of irrigation systems.

Galcon's RMIS (Remote Management Irrigation System) enables municipalities to remotely control their irrigation systems from anywhere, via the Internet with GPRS communication, significantly reducing municipal water budgets.

Among their many water-related responsibilities, municipalities are in charge of managing the processes, as well as reducing the costs, of irrigation in their communities. Irrigation consumes large amounts of water and energy, making it imperative for authorities to tightly control their limited resources. The highest levels of irrigation efficiency are reached when leaks are rapidly fixed, and when the precise amount of water is applied at precisely the right moment. Requirements regarding water usage are determined by a wide range of constantly changing parameters, including temperature and rainfall. Therefore, the ability to alter usage decisions in real time, as these parameters change - and to plug leaks in the system as soon as they arise - is crucial. Galcon's RMIS enables municipalities to make these adjustments from anywhere, on the fly, conserving both water and energy, and thus saving money.

Galcon's DIY products include a range of user-friendly, battery-operated, one-station units for the amateur home gardener. In keeping with the Whitewater Group's focus, the company also offers an assortment of specialized AC, battery-operated and wireless products - as well as state-of-the-art solutions used in open fields and greenhouses - for professionals who tend private and public gardens and agricultural fields. In addition to RMIS, the company provides products for municipal irrigation and control, including a central control system that manages the irrigation of wide areas (e.g., universities, hotels, public parks, etc.), via a

single wireless computer. Galcon's cutting-edge, computerized systems can be adapted to hothouses as well as to any size field, meeting even the most complex irrigation demands.

Hospital using electricity to fight cancer

Bridgeport Hospital is the only center in Connecticut participating in an international trial of a novel cancer therapy that kills tumor cells with low levels of electricity.

The promising new method, if proven, represents the first new physical approach to killing cancer cells since the introduction of x-rays and other forms of radiation, according to one of the principal investigators at Bridgeport Hospital.

Unlike chemotherapy, which can cause nausea, and radiation, which can damage surrounding tissues, the new "tumor-treating fields" or TTF, have no side effects, said Dr. Kenneth Lipow, chief of neurological surgery at Bridgeport Hospital, and co-investigator in the study.

The study, in the U.S. and Europe, is being financed by NovoCure, a privately held company founded by an Israeli professor in 2000.

Lipow said he is being paid only to produce results, not prove efficacy of tumor-treating fields.

NovoCure intends to recruit 236 patients for the Phase III trial, the last step before the treatment can be approved for use in the U.S. So far, about 186 patients have been accepted.

The study is aimed at glioblastoma, an aggressive brain cancer that strikes about 13,000 people in the U.S. annually. Lipow said the technology also should be useful against lung and breast cancers and melanoma, a potentially lethal skin cancer.

TTF relies on electromagnetic properties of proteins within rapidly dividing cancer cells, Lipow said.

"If you take tumor cells and put an electrical field through the cells 24 hours a day, the tumor will die," Lipow said.

Lipow said it is important to note the fields are not magnetic, nor are they the type produced in proximity to high-voltage lines.

Electric fields form between positive and negative charges. In practice, patients have electrodes stuck with adhesive to two shaved sections on opposite sides of the scalp.

A small charge, which can't be felt, is set up between the electrodes. The fields can be rapidly alternated by a computer that powers and control the array.

Protein molecules are also charged, like microscopic magnets. When the fields are turned on and off, proteins vibrate. In a normal resting cell, the components simply shake back and forth harmlessly.

However, the fields have a different effect on dividing cells, Lipow said.

Dividing cells created "spindles" during the process of reproducing and dividing chromosomes.

Tumor treating fields spindle molecules and shake them apart. Without spindles, cells can't reproduce and the tumor eventually dies.

Because tumor cells divide much more frequently than normal cells, the cancer absorbs the brunt of the electric waves, Lipow said.

Study participants are being randomly assigned to two groups. One will receive standard care; the other will undergo TTF. They will be required to wear electrodes 24 hours a day for 18 months. "The tumor never gets a chance to rest," Lipow said.

The only side effect noticed so far is redness and irritation at the electrode sites.

Cancer cells are notorious for developing resistance to chemotherapy, and tumors can become resistant to radiation. Lipow said tumors would have to radically modify basic cell structure and workings to resist TTF.

Study participants have exhausted all other cancer treatments. They are given magnetic resonance scans periodically to check their tumor's size.

Employers can now read text messages

Onset Technology has come up with Big Brother software that enables employers to monitor

employees' texts, as well as control who they're writing texts to and what they're writing. It's called METAmessage Advanced Compliance Tool.

"We scan and block text messages so the company makes sure there are no text messages going out that violate company policy," said Zack Silvinger, the company's vice president of business development and marketing.

That means if your company has decided that curse words, sexually explicit words, or even the word "beer" aren't acceptable, you'll be thwarted every time you try to send a text message with banned words on it. What's more, your message will be sent to the human resources department.

Companies using the software can also create blacklists to control whom employees can text.

If you're scared now, you might get some relief knowing that federal law prevents service providers from turning over contents of text messages to an employer, even if an employer pays for the service. But with this software, your employer scans the text messages before you even send them.

It may seem ridiculous for companies to employ these tactics, but they can prevent legal issues from arising, said Patrick Corr, Onset's vice president of sales. "The idea is to protect the enterprise," he said.

Ferrari bike revealed

In the real world chances are close to naught that Ferrari will ever produce a two-wheeler, but in the fantasy realm in which many designers spend their days, anything is possible.

This Ferrari motorcycle has been dreamed up by Israeli industrial designer, Amir Glinik, and boasts some of the most salacious curves around. Well on a bike at least.

For its power Glinik sliced one third off a mighty Maranello V12 to create a V4. The engine relies on drive-by-wire technology and uses hand controls that were inspired by the F-16 fighter jet. And on the steering you will find buttons similar to those on the steering wheel of a Ferrari F1 model.

Controls for the sound system (every cool concept has to have one of those) and the trip computer are found on an all-weather touchscreen which has

been mounted to the tank.

"Vintage and modern Ferrari projects influence my design," says the concept's creator. "It's a mix of what I find to be the best Ferrari lines with the latest technology I could think of in terms of engine, gear and driving management."

Just how true Glinik has stayed to the Ferrari-essence is debatable, and as always there are the dubious practicalities, like the rigid front shock and swingarm. But ours is not to question why. Ours is but to dream and ride.

Israeli company barcodes beef for safety

The idea started in Israel, where animal theft has become a major concern. Hundreds of beef cows worth \$2,000 a head are being stolen a year, and in most cases smuggled across the green line to the Palestinian Authority. Slaughtered immediately, with no visible trace in sight, Bactochem was asked to find a way to track and trace these animals using the "CSI" style methods the company specializes in.

Bactochem, which operates in Israel in the area of environmental quality and food health and safety, decided to create some innovation of its own. It developed a novel method using cow DNA and software, which can determine and track with a small genetic sample, such as a hair from the back of the animal, where a cow was born, bred and - if it comes to it - slaughtered.

While animal theft is less of a concern in Western countries such as America, the company is now in discussions with a German firm on how to use its testing methods and software solution, to track and trace cows for health and safety issues.

When illnesses such as foot and mouth disease strike a farm, or tainted beef turns up in supermarkets, the industry often responds by mass slaughtering animals, simply because it knows of no other way to contain the problem effectively.

This is an unnecessary move, according to Dr. Aviv Kahana, the manager of the molecular biology department of Bactochem, since the company's technology can change the industry by keeping

reliable tabs on the health of livestock at individual farms.

Bactochem can detect a number of significant things. By keeping the animal's DNA on file, a Jewish consumer can know whether the meat is kosher or not, if it was raised in organic free-range conditions as advertised, or even if it was exposed to diseases such as Mad Cow. The company can also tell if milk from different livestock has been mixed.

Bactochem's plan is to collect genetic samples from livestock at birth. Today, the cost for each sample is about \$25-40, but Bactochem expects to be able to reduce this cost by one-fifth, making the company an attractive "cow library" for farms around the world.

"People will be able to know if 'Nechama' [Hebrew for Bessie] from this and that farm, was raised in a certain way. They'll be able to know from where each cow came," says Kahana.

As a result, farmers and supermarkets will lose much less business, Kahana believes, and customers will in effect have a more intimate relationship with their meat.

GlobalLogic bought by American company



GlobalLogic reportedly paid \$10 million for the Israeli software developer.

GlobalLogic Inc. of the US has acquired Israeli software developer InterObject Ltd. The companies did not disclose the size of the deal, since they are both private firms, but sources inform "Globes" that it totaled about \$10 million. InterObject is headquartered in Israel and has R&D centers in Lviv and Kiev in Ukraine.

InterObject CEO Eli Schwarzfuchs and R&D manager Alex Agizim founded the company in 2000. The company develops embedded software, mobile and multimedia streaming products. It has been profitable since 2004, reportedly making \$8 million a year in revenue, and has not needed outside financing. It has 250 employees at its Ukraine R&D

centers, and its acquisition will turn it into the largest offshore IT services company in Ukraine.

Former SAP star Agassi to set up \$1 billion electric car network in Australia

The man once touted as the next CEO of SAP Shai Agassi has forged agreements between his company, Better Place, Australian utility heavyweight AGL Energy and the financial advisory arm of Macquarie Group, to launch a AUD\$1 billion electric car infrastructure project in Australia.

Better Place, which has already established electric car programs in Israel and Denmark, has chosen Australia as its prototype for rolling out electric vehicle infrastructure in large countries. The project, will require \$1 billion in funding, which will be raised by Macquarie Capital Group.

A Palo Alto Silicon Valley startup company, Better Place was founded by Israeli American Shai Agassi, former president of the product & technology group and executive board member of German business software giant SAP.

At the beginning of the year, with the blessing of the Israeli Government, a joint venture was announced with car makers Nissan and Renault to build an electric car infrastructure throughout Israel using a business model similar to the way the mobile phone industry works.

Under the Israeli joint venture arrangement, car makers Nissan and Renault are supplying the electric cars. Better Place supplies Lithium Ion batteries and is building a ubiquitous electric car infrastructure throughout Israel, including 500,000 parking-meter-like charging points on Israeli streets and service stations where spent battery packs will be replaced with freshly charged packs within minutes.

The battery packs provided by Better Place, which are claimed to have a range of about 200km, will not be owned by subscribers to the scheme but will be part of the service infrastructure where users pay for the number of kilometers driven. Users who charge batteries from their home will be given a credit for

the kilometers they put back into batteries, not unlike the way electricity users with solar panels are given credit when they supply energy to the grid.

In late March, it was announced that Denmark had put up its hand to become the second testbed for Better Place. The Danish Oil and Natural Gas company, known as 'DONG Energy', is partnering with Better Place to create a new venture called Better Place Denmark.

CloudTuner : start-up takes new Look at Query Refinement

CloudTuner, an Israeli start-up is working on technology that applies a new perspective to the importance of keywords in search. Users are provided with a WYSWYG (What You See Is What You Get) interface consisting of keywords in a tag cloud. Different keywords can be selected and their importance in the query altered. The relative importance of the words is reflected in their size and text colour. Semantics would be applied to provide suggestions for terms matching the ones entered by the user.

Time spent searching usually consists of analyzing results and refining a query accordingly. This process resembles the first HTML editors where content displayed during editing (HTML code) is different from the final output (Web Page Layout) so developers were forced to re-render their HTML code after each change to see how the final page layout is affected. These ancient tools are now replaced by new generation of software employing a "What You See is What You Get" (WYSIWYG) user interface for visual editing. Unfortunately, the standard user interface for search is still divided into query interface (search box) and results interface (list of links with summary).

What is more promising is the application of the technology to image search. Users get to zoom in and refine the parts of an image that search should be focussed on. This feature can have great potential given the proliferation of mobile devices with in built cameras. For eg: Tracking down a product from an image (jewelery for example).

There is a lot of promise in providing flexibility with importance of keywords. What matters is how relevant keywords are brought in for a user query. Also, the size of the tag cloud could matter (not too sparse, not too cluttered). And ultimately it will also come down to efficiency and comfort of use (how fast do I get results with repeated searching and few keywords changed). Perhaps shortcuts to toggle between words and change size quickly could also help.

Teva enters Nasdaq's top ten

Teva Pharmaceutical Industries Ltd. (Nasdaq: TEVA; TASE: TEVA) has become the tenth largest company traded on Nasdaq in terms of market cap. Teva has climbed seven places since the start of 2008 with a current market cap of \$32.47 billion. At the end of last week Teva's market cap managed to record a historic figure - \$32.47 billion placing it in tenth place on the Nasdaq 100 Index, which is led by Microsoft with a market cap of \$202 billion, more than double Cisco in second place with a market cap of \$101.5 billion.

Teva's cap has succeeded in moving up seven places since the start of the year even though its market value has fallen by about 17%. Teva is considered a defensive share and this has enabled it to overtake such companies as Canada's Research in Motion L

Stress during pregnancy has detrimental effect on offspring,

Stress during pregnancy can have unfortunate consequences for children born under those conditions - slower development, learning and attention difficulties, anxiety and depressive symptoms and possibly even autism.

That such stress during a mother's pregnancy can cause developmental and emotional problems for offspring has long been observed by behavioral and biological researchers, but the objective measuring and timing of that stress and its results are difficult to prove objectively in humans, since the evidence is based to a large extent on anecdotal recollections and is also strongly influenced by genetic and other factors.

One researcher who has long wrestled with the problem of how to prove the connection between prenatal stress and its effects on offspring is Prof. Marta Weinstock-Rosin of the Hebrew University of Jerusalem School of Pharmacy, who in her experimental work with rats has been able to demonstrate that relationship in a conclusive, laboratory-tested manner.

“There is an enormous advantage in working with rats,” says Weinstock-Rosin, “since we are able to eliminate the genetic and subjective element.” The researchers were able to compare the behavior of the offspring of stressed rat mothers with those whose mothers were not stressed. They also were able to compare the results of administering various types of stress at different periods during the gestation process to see which period is the most sensitive for the production of different behavioral alterations.

Weinstock-Rosin’s work, along with that of colleagues from Israel, the UK and elsewhere, will be presented at an international conference, “Long Term Consequences of Early Life Stress,” which she is co-chairing with Dr. Vivette Glover of the Imperial College, London, and that will be held at Mishkenot Sha’ananim in Jerusalem on October 29 and 30.

Weinstock-Rosin has been able to show through her laboratory experiments that when rat mothers were subject to stressful situations (irritating sounds at alternating times, for example), their offspring were later shown to have impaired learning and memory abilities, less capacity to cope with adverse situations (such as food deprivation), and symptoms of anxiety and depressive-like behavior, as compared to those rats in control groups that were born to unstressed mothers. All of these symptoms parallel the impairments that have been observed in children born to mothers who were stressed in pregnancy, she points out.

Further experiments by Weinstock-Rosin and her students have shown the crucial effect of excessive levels of the hormone cortisol that is released by the

adrenal gland during stress and reaches the fetal brain during critical stages of brain development. Under normal conditions, this hormone has a beneficial function in supplying instant energy, but it has to be in small amounts and for a short period of time. Under conditions of excessive stress, however, the large amount of this hormone reaching the fetal brain can cause structural and functional changes. In humans, above-normal levels of cortisol can also stimulate the release of another hormone from the placenta that will cause premature birth, another factor that can affect normal development.

Weinstock-Rosin says that further experimental work is required in order to study possible other effects on the offspring resulting from raised hormonal levels. What does seem to be obvious already is that avoidance of stress to as great an extent as possible is a good prescription for a healthy pregnancy and healthy offspring.



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