

Digital photo ordering emerges

Continued from C1

after it was taken. With the 8-mega-byte memory card, it could also film 20 to 30 seconds of video and audio, which is a nice bonus. The same memory card also allowed about 68 low-quality images (good for e-mail purposes), or about a dozen high-quality ones. Extra memory is always an option.

But without prints, it was still just a flash in the pan to me, at least until I got home. Within a day, Carlos had e-mailed me the photos he had taken along with a link to www.photolab.ca, where he said I could upload what I like and have them processed and delivered a few days later.

I was skeptical, but I gave it a shot and was amazed with the outcome. In a nutshell, the Web site was easy to use, intuitive, and because I have high-speed Internet access at home, it was fast. Uploading images — I uploaded about 20 — took a few minutes.

Once uploaded, the images are displayed on the site in an organized grid.

When you're ready to order the photos, you select the ones you want to purchase and are brought to a screen that, for each image, lets you choose how many you want, the size of the print and the type of border. It's as simple as checking a few boxes, and the prices for each are shown along the way.

When done, you submit your order, including your billing/shipping information and credit card number, and get your prints in the mail a few days later. Photolab.ca launched the service in January, 2001, and has waived the shipping costs ever since (though I'm not sure how long that will last).

A 4x6 photo without a border costs 49 cents (69 cents with border). An 8x10 is \$4.99. The site will tell you if the image quality is too low for a certain size by placing a caution sign beside it.

"Digital cameras have become pretty close to mainstream, and with that we've seen more and more customers looking for this type of online service," says Geoffrey Wilson, a spokesperson for Photolab.ca, which is operated through the Loblaw family of companies. "With high-speed Internet access

'With high-speed Net access, it's a more enjoyable experience for the user'

it's a more enjoyable experience for the user. We're seeing significant growth in line with the growth of digital camera use."

I got the prints in the mail and was blown away by the quality. Days later, I found myself on eBay.ca bidding for the same Minolta Dimage X. I ended up buying a brand-new model for about 30 per cent off the regular retail price of \$599. I've since become a snapshot fanatic like Berners-Lee.

Like Photolab, Black's and Future Shop and a handful of other traditional photo developers offer similar digital processing services over the Internet, but few of them — if any — are actively promoting their services with marketing campaigns and advertising.

Todd Hiscock, chief executive of St. John's-based Telepix Imaging, which provides the background software for most of these online initiatives in Canada, says traditional retailers now providing these online services are taking a cautious approach.

They're choosing to grow their online services organically as the digital market evolves, rather than prematurely throwing huge amounts of money at a service that many customers still aren't ready to embrace. Call it post-dot.com rationalism.

I can tell you this — I was ready. For me, how to get prints of digital images has long been the bottleneck for this industry.

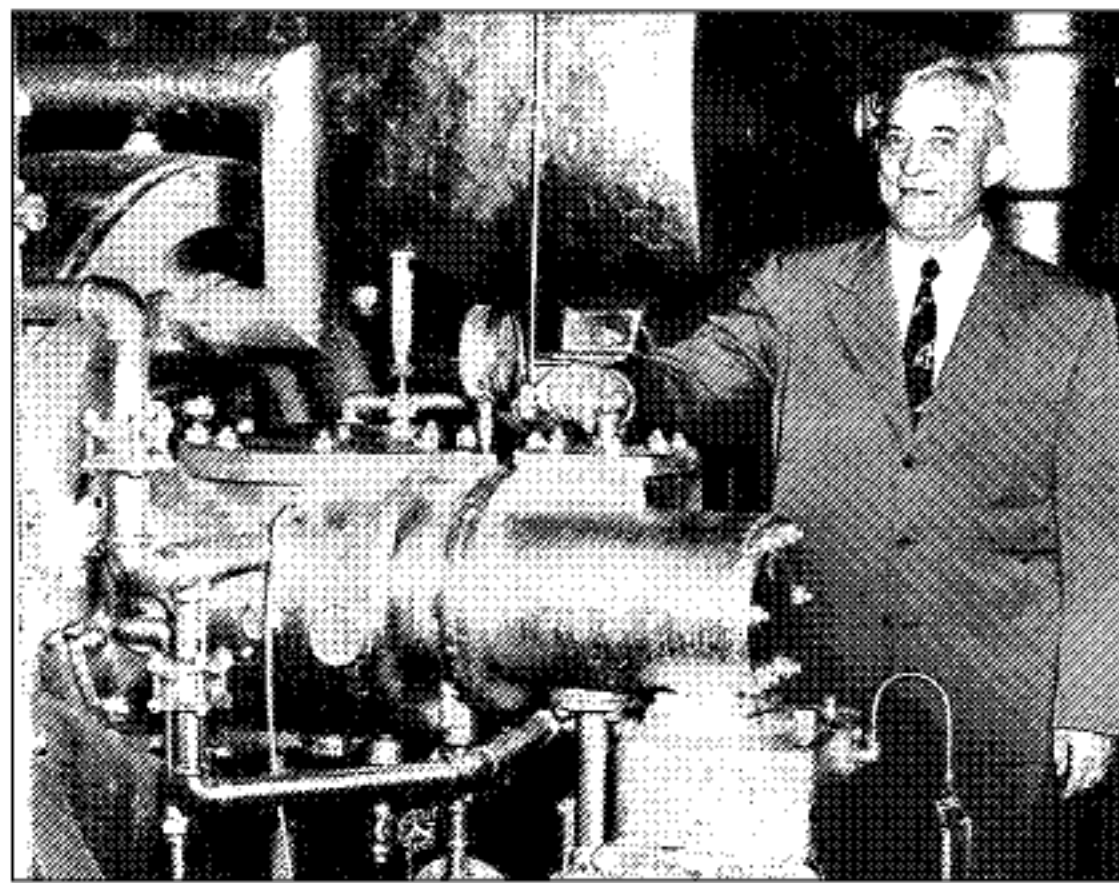
Hiscock agrees: "We have T-shirts here at work that say 'It's all about the prints, stupid.' You ask me what I do? My job is to get prints off of digital cameras."

Surprisingly, 95 per cent of all digital photos are still printed at home.

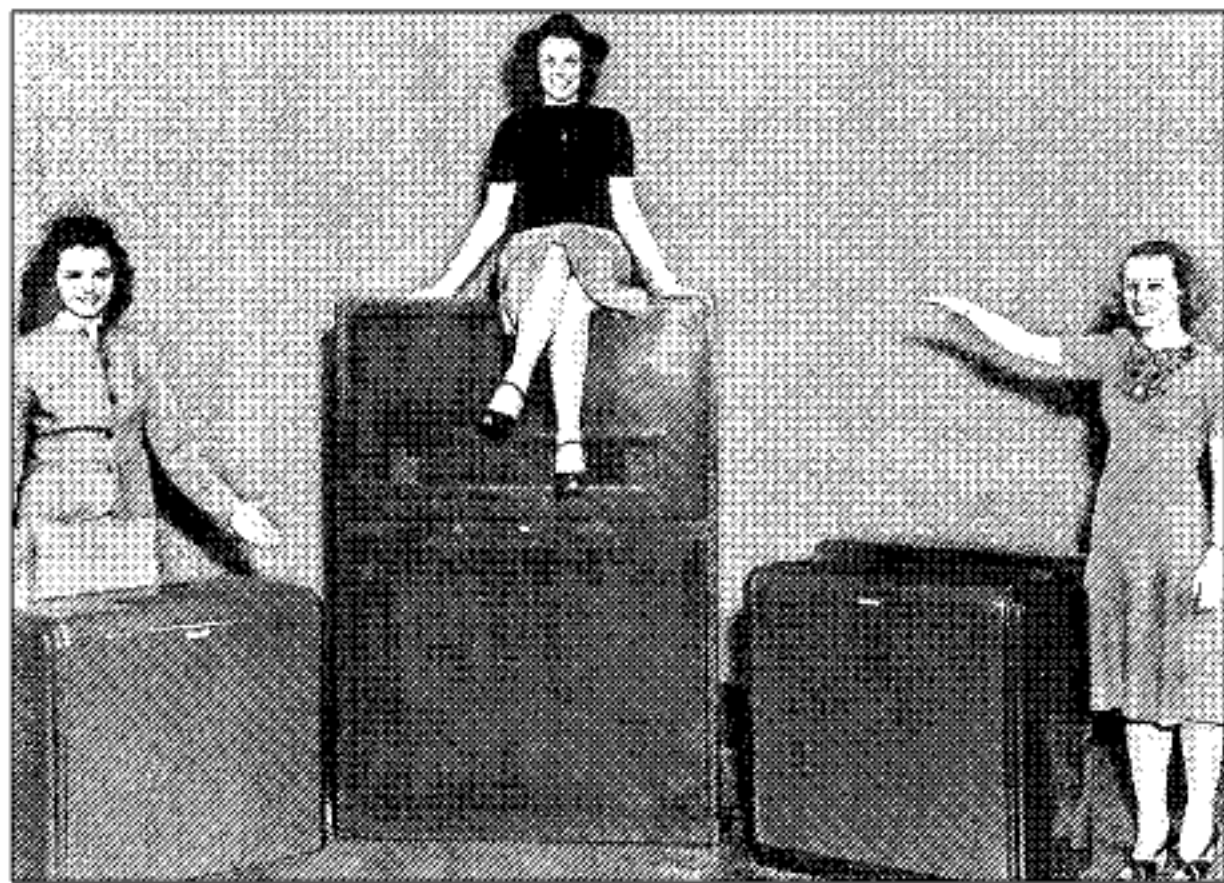
For the traditional photo retailer, online orders of digital photos only represent about 5 per cent of revenues. So while digital cameras will soon be considered mainstream, online ordering of digital snaps is just emerging.

As a skeptic turned believer, I'm eager to spread the word. I urge you to check out one of these services. You may be pleasantly surprised by what's out there, and with the quality of your digital prints.

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FATHER OF COOL: Willis Carrier, left, is shown circa 1950 with one of his more elaborate air-refrigeration machines for large spaces such as department stores. Household units in the 1930s, right, resembled conspicuous pieces of furniture.



Shooting the breeze

Eccentric inventor Carrier built one of the first mechanical air conditioners 100 years ago

Rediscovery

RACHEL ROSS



If you're thinking about buying an air conditioner, consider the electricity-free cooling action of the lowly rocking chair. With a few minor adjustments you could be rock, rock, rocking your way to refreshment, according to David Kahnweiler of North Carolina.

In 1857, Kahnweiler patented an early take on the air conditioner: a "ventilating rocking chair." Bellows under the chair pumped air past ice and perfume, rendering the air "salutary and refreshing." Of course, you could save yourself the hassle of building the darn chair and just stick your feet in a tub of ice water. But the mark of a great inventor is hardly doing the obvious.

Alexander Graham Bell kept cool by draining his swimming pool and converting it into an ice-cooled living room. He built ventilators to move air over ice and into the bottom of the pool, furnished comfortably with a carpet, desk, sofa and armchair.

Personally, I pity the poor guy who had to schlep all that furniture into the pool. He must have wondered why Bell didn't just go for a swim to cool down, like everybody else. And can you imagine trying to sell your house with Bell as your next-door neighbour? "Pay no mind to the inventor at the bottom of the pool next door — he's designing an air conditioner!"

Many of the masterminds behind today's cooling technologies were a perhaps a bit too affected by the heat.

Willis Carrier, the man commonly thought of as the father of the modern air conditioner and the co-founder of Carrier Corp., was known for his odd behaviour. Much to the chagrin of his wife, Carrier would sometimes get so focused on his work that he would forget simple things like eating or going home. One of his co-workers recalled a classic Carrier story in the book *Heat And Cold*, by Barry Donaldson and Bernard Nagenast.

According to the story, Carrier was on a train leaving Newark when the conductor asked for his ticket. When Carrier couldn't find it, he became upset. The conductor assured him that he could pay for a new ticket and get a refund when he found the old one.

Carrier replied, "That's not the

problem — I don't know where I'm going."

But long before Carrier developed the air conditioner 100 years ago in 1902, scientists and engineers around the world were using elaborate systems to stave off the heat. In 1844, astronomer Charles Piazzi Smyth built his own cooling machine. In 1892, Scottish engineers William Key and Robert Tindall patented a cooling system for schools.

Ice was the most common cooling agent proposed in those days, but it was hard to come by and rather expensive. Ice-cooled air also tended to be wet. Key and Tindall thought they

could dry the air with a screen of coconut fibres or horsehair. Call it an early dehumidifier.

Drying the air became increasingly important at the end of the 1800s, as people realized that being comfortable was a matter of temperature and humidity. German professor Hermann Reitschel wrote a book on the subject in 1894, outlining the scientific relationship between heat and moisture.

Carrier studied the same relationship years later while working for a heating and exhaust firm called the Buffalo Forge Company. It was there that he began his work on the modern air conditioner, a significant departure from ice-cooled systems because it used chemicals to cool the air.

He designed his first cooling machine 100 years ago for a New York printer. Heat and humidity were warping the man's paper and playing havoc with his dyes.

By 1906, Carrier had patented his air treatment apparatus and was starting to sell air conditioners to a handful of customers. Textile mills needed temperature controls to get

rid of the fuzzies: Too much dry heat created static electricity that made the cotton hard to weave. Meat packers and bakeries clamoured for the machines to keep their products fresh.

Generally, Carrier's machines weren't intended to keep the workers cool — that was an added benefit.

It would take the movies to really make air conditioning popular with the general public. By the 1920s, a number of U.S. theatre chains were installing air conditioning systems as a way to draw crowds on hot summer days. Not only could you go there for a movie and a popcorn, but you could also get out of the sweltering heat.

At the same time, Carrier was perfecting an air conditioner that was able to cool large spaces.

His centrifugal air conditioner, patented in the 1921, relied on the smooth rotation force of a centrifuge to pump the refrigerant around, as opposed to the clunky back-and-forth motion of pistons. The increased efficiency meant Carrier's machines could cool larger spaces — a good thing, too, because the cool trend was catching on at big department stores as well.

Carrier started selling home units, such as the Weathermaker, in 1928, but they became a rare luxury with the Great Depression. With the Second World War air conditioners were moved out of department stores and into war production plants.

After the war, individuals started thinking about buying a home air conditioner but no mass adoption took place right away, which turned out to be just as well.

Perhaps you've heard about the deaths associated with early refrigerators. The first chemicals used in refrigerators were highly toxic. If the chemicals, such as ammonia, slowly leaked out of the machines the result could be lethal.

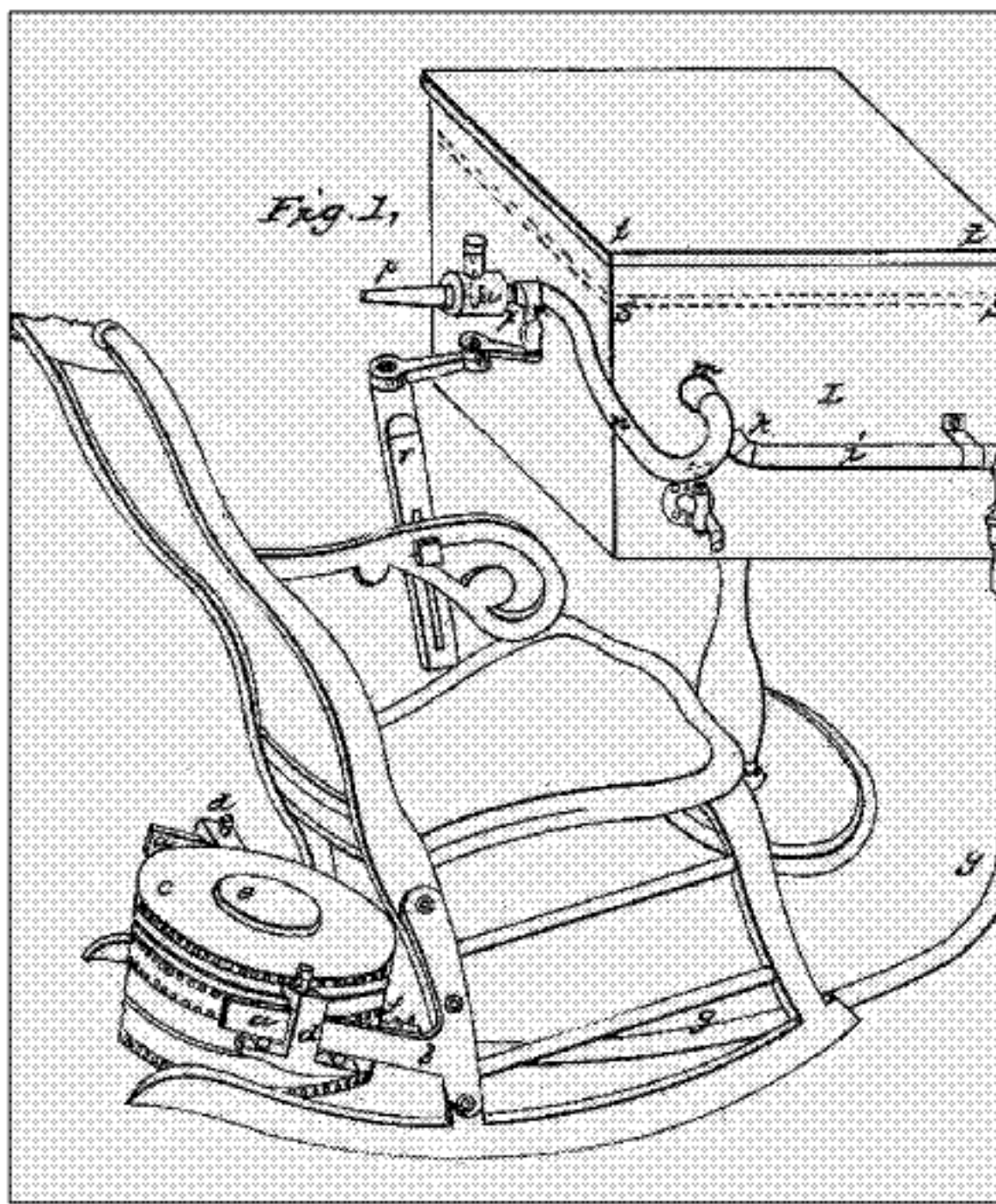
Early air conditioners operated a lot like refrigerators and had the same kind of problem.

The solution to the problem was equally notorious. In 1930, Frigidaire scientists developed an inert, non-toxic replacement called Freon. Forty years later, the world awakened to the fact that Freon refrigerants were depleting the ozone layer.

Today, we use other gases such as Duracool in our air conditioners and refrigerators. But the system itself is pretty much the same as Carrier's machines from 80 years ago.

And, fortunately, that's a whole lot better than a rocking chair with some bellows and an ice pack.

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FRESH BREEZE: The Kahnweiler rocker of 1857 utilized a bellows to pump air past ice and perfume to blow into the sitter's face.

Game fanatics demand extra power

BY CRAYTON HARRISON
SPECIAL TO THE STAR

DALLAS — Jim Austin wanted something sporty, something that would turn heads and handle his speed-demon demands.

After months of study and deliberation, Austin, 43, became the proud owner of a Voodoo Egad, an intimidating machine with a plastic glass window displaying its red interior and neon lighting. Friends visit his Wylie, Texas, home just to gawk at the \$5,500 (U.S.) computer system.

"There's nothing wrong with having a high-end Dell or a high-end Gateway, but nobody's going to come over to your house and want to see it," Austin said. "A Voodoo is just the opposite."

Voodoo Computers Ltd. of Calgary and a handful of other computer companies believe people like Austin are willing to pay \$5,000 or even \$10,000 for custom-built, super-fast machines that look like they belong to Anakin

Skywalker.

"These are passionate gamers, hardware freaks who want the latest," said Kevin Wasielewski, spokesperson for Miami PC maker Alienware Corp.

And as the market of video-game enthusiasts broadens, these tiny, privately held companies are contemplating how to expand without losing their reputations as the sophisticated upper echelon of the computing world.

"We've been growing steadily. We're just trying to control it," said Kelt Reeves, president of Falcon Northwest Computer Systems Inc. of Ashland, Ore.

It's hard to keep pace with the video game industry. PC entertainment software alone brought in \$1.4 billion in revenues last year in the United States alone and will reach \$2.5 billion by 2005, according to Dallas investment firm SWS Securities.

In the world of PC gaming, like the

console world where Sony, Nintendo and Microsoft play, technology keeps driving games to require better graphical displays, sound quality and processing speeds.

But PC gamers don't have to wait for new PlayStation or Xboxes to use the latest technology. Instead, they constantly upgrade their machines with new processors, video cards and other components.

That means plenty of business for component makers who can keep up with the latest demands. And since gamers often buy newer, better machines more often than other computer users, they're a hot market for the PC industry.

The big public PC makers, including Dell Computer Corp. and Hewlett-Packard Co., aim some products at the video game connoisseur but they're also targeting other markets. High-end PC makers treat customers like royalty and carefully maintain brand names.

The companies will never reach the sales figures of Dell or HP, but dedicated game players will keep them healthy as long as they maintain good reputations, said Scott Miller, chief executive of 3D Realm, a Garland, Texas, game developer.

"I'd guess there's about a million to two million hard-core gamers out there," said Miller, who has used an Alienware computer at work. "You pay a little extra for these systems, but the quality is in there. They're tailor-made for gamers."

Voodoo's biggest sales still come from gamers who want to be different. One man paid Voodoo several thousand dollars to fit a computer into the F-16 cockpit he had in his basement. Another wanted his system gold-plated. No problem.

"We've designed the ultimate piece of furniture, a true luxury-class computer," said Rahul Sood, who founded Voodoo in 1991.

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