

## GLOBEANDMAIL.COM

[Print this Page](#)

## Technology can buoy pool safety



By Bob Lyons  
Special to Globe and Mail Update

UPDATED AT 10:08 AM EDT

Monday, Jun 28, 2004

*Front Lines is a guest viewpoint section offering perspectives on current issues and events from people working on the front lines of Canada's technology industry. Bob Lyons is president of Terrapin Communications Inc.*

Drowning is either the leading or second leading cause of accidental death of children aged 1 to 4 in most Canadian communities. A toddler whose home has a backyard pool is many times more likely to drown than experience a fatal car accident.

Toddlers whose parents have recently purchased a pool are at the greatest risk. All the while public awareness is growing, but the annual drowning toll remains stubbornly high.

So how quickly is Canada adopting pool safety technology compared to other countries? Unlike Australia, France, and many counties in the U.S., backyard pool installation and operation is unregulated in Canada, except with respect to property fencing. Canadian regulators treat the backyard pool or spa as an item of individual responsibility and choice. The Canadian Lifesaving Society, other safety organizations and some local governments, with help from the media, promote water safety in theory — and that's it.

But, interestingly, safety-related technology is the fastest growing pool & spa market in Canada, with sales doubling in each of the last four years. Why? Because parents are starting to understand that vigilance and property fencing alone do not adequately protect children in or around a pool. Still, we are moving much more slowly than Australia, France and some parts of U.S. that have chosen to mandate the use of technology in new, and ultimately all, backyard pools installations.

What's more bewildering is Canadian organizations like the Canadian Lifesaving Society, the Canada Safety Council and the Red Cross have a long legacy of education programs that don't incorporate technology, at least until it is thoroughly proven in practice — which could take years depending on the organization's criteria. Their (risk adverse) lawyers appear to focus on the liability of leadership rather than a positive macro result. So, unless the status quo in Canada becomes a political issue (as it has in Australia, France and some parts of U.S.), don't expect Canadian pool safety product standards or recommendations any time soon.

Responsible pool owners in Canada know that child supervision is necessary, even mandatory, but is simply not enough. Technology innovation and its adoption can help lower pool drowning as a leading cause of accidental death, but what products are available now, and how effective are they?

A variety of safety-related products are now available and coming on-line to make pools safer by preventing access to the water, warning if an unauthorized child enters the water, and by alerting if someone in the water gets into trouble. Technology-related solutions include everything from pool-intrusion and gate-opening sensors, to laser fences at the pool's perimeter, to water-motion sensors and sonar or video surveillance of the pool itself.

A fence completely around the pool is the absolute essential starting point. It should be at least four feet high and clear of any furniture a child could use to climb. A self-closing, self-latching-gate is also essential to ensure an opening is never available to a child. Equally important, only the pool — no lawn chairs, barbeque, etc. — should be found within the pool fence. An access barrier from the house to the backyard therefore does not suffice as the "fourth side" of a pool fence.

A variety of devices are available to warn of entry into the pool. None of them properly substitute for a pool fence, although they are often used this way.

Pool alarms fall into two categories: those that alarm if anyone enters the pool [indiscriminate] and those that alarm if an unauthorized person enters the pool [discriminate]. Only the discriminate system continues to function when a pool is occupied, or is viable at a shared condo or resort during open pool hours.

The traditional pool alarm detects surface wave or subsurface water pressure to infer pool entry. Devices of this type have the well-known disadvantages of false alarming due to wind, and delay in detecting waves produced by a small child. A newer, more expensive device using sonar rather than water displacement is faster and more reliable.

The only type of discriminate pool alarm product currently available relies on an immersion sensor that must be worn by each individual, normally a young child, without permission to go into the pool. Since no alarming will occur unless the child is wearing the device, it needs to be both appealing to the child and something only an adult can remove.

Underwater video surveillance to assist lifeguards is being installed at some public pools. This technology is not yet viable for private pools.

While safety-related technology is today a fast growing market, it is only scratching the surface of the need. The majority buys safety only when forced to do so, i.e., years after a product is demonstrably effective. The car seat belt and the personal flotation device (PFD) are striking examples.

Why this irrational behaviour — why wait until lives are lost before we do anything? Because we as a society often wait for our governments to make decisions, even when the statistics are clear. We also have perceptions and attitudes that are difficult to shake, and technology can be threatening to what people think already works.

Canadians are well informed and safety conscious. But we need to be even more protective of all young children living with a backyard pool. The needless death or permanent brain damage of a child affects us all. Therefore, take charge and don't wait for pronouncements and regulations from safety organizations before learning more about the options available. This is a real opportunity for technology to make a difference.



© 2004 Bell Globemedia Publishing Inc. All Rights Reserved.