SAFETY ACTION PTY LTD®

Collaborative or Scary Robots?

Christmas Breakfast Briefing
13 December
Safety Plans for 2019 & Safety Benchmarking Results

December 2018 News

Welcome to the December Safety Action News

We'd like to extend a special thank you to all of our clients and newsletter readers for making 2018 a great year for Safety Action.

As Christmas is often the most dangerous time of year at work and on the roads, we remind everyone to take time to be safe. We look forward to seeing you in 2019.

Our Christmas Breakfast Briefing is on Thursday 13th December at our Clayton Conference Centre. Register now for this free event and bring along your safety plans.

Have a safe holiday!
From the team at Safety Action.

Stephen and Katie Weber with new baby Cassandra and boys Ronin and Vincent

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Christmas office closure

The Safety Action office will close for Christmas on 21st December 2018 and re-open on 14th January 2019.
We will continue to provide support as needed. Call (03) 85 444 300, email enquiries@safetyaction.com.au or contact our consultants directly.

Christmas Breakfast Briefing

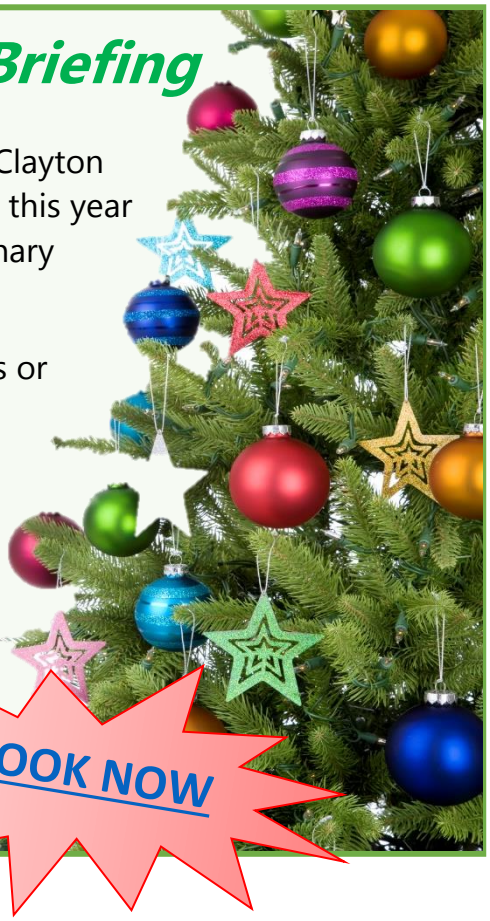
Our last breakfast briefing for the year will be held at our Clayton conference room on Thursday 13th December. Our theme this year is ***Planning Safety for 2019***. We will also provide preliminary trends from our 2018 safety performance survey.

All participants are encouraged to bring along your stories or experiences on:

a) How your safety plans went this year; and
b) Your key plans or focus for 2019.

As usual this will be light-hearted but providing some interesting tips for next year, and an opportunity to network with friends and specialists from other businesses or industries.

Click here to register.



Collaborative or Scary Robot?

Early Images of Robots

Science fiction has created many scary machines and frightening future-world scenarios involving disobedient or secretive robots, or more likely malevolent controllers.

Images from early science fiction TV series.

"I'll make cars for you, but try to unplug me and I will vaporize you"

Back in 1942 the famous science fiction author Isaac Asimov created the **three laws for robots** in order:

1) Don't harm humans;
2) Obey orders; and
3) Protect yourself.

Asimov explained the order of these laws is important because a robot protecting itself must only do this after complying with the first two laws. Otherwise you may get the scenario as depicted in the caption below.

"Robot - go explore Mars – Ha Ha! No, it's cold and I'd die"

Another author, Osamu Tezuka, formulated an expanded set of ten (10) principles for robots for his 1988 series Astro Boy.

I particularly liked a couple of the new rules including:

a) Robots shall not leave the country without a permit; and
b) Robots must not alter or conceal their identity.

Clearly, the Astro Boy robots were expected to be advanced and operate independently.

A couple of robot characters from the Wallace & Gromit animation series

Fast Evolving Technology

A speaker on a Radio National science program recently made the comment that cockroaches are more intelligent than our current breed of robots.

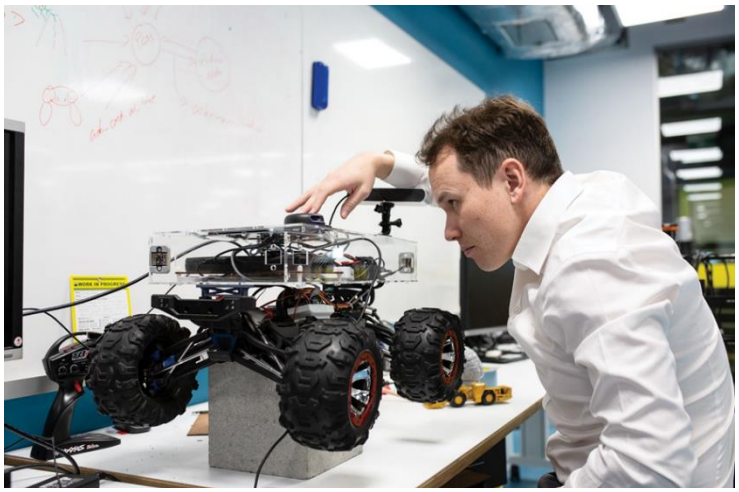
He said current robots are so stupid that if you placed one in the forest it would quickly get lost, fall over and die, where as a cockroach would scurry for cover, forage for food and thrive.

The science program speaker explained our goal is to first develop robots as smart as cockroaches, then rats, and then dogs. But cautioned developing robots as smart as monkeys, as they may be too smart and become disobedient.

The Rat King

Professor Milford, Chief Investigator at the Australian Centre for Robotic Vision, see photo below, is studying the navigation skills of rodents to discover the secrets to their uncanny ability to quickly navigate through unfamiliar territory.

He explained that rodents seem to navigate around their world effortlessly, yet our current robots find it hard to find their way around simple environments.



Professor Milford trialing rodent inspired techniques to guide robots

However, technology is changing fast.
Up until now all industrial robots were fully isolated in the workplace with extensive guarding and fencing with complex interlock procedures to enter robot compounds.

These old-fashioned robots typically performed tasks which were too heavy or dangerous for humans.

Traditional style of robot "locked" in a fenced compound

Recently a London based client asked us at Safety Action to prepare a technical standard on cobots for use world-wide. Initially I had to ask what they meant by the term "cobot".

Collaborative Robots - Cobots

Many progressive companies are now introducing clever robots to carry-out intricate and repetitive tasks alongside human workers.

Examples of cobots working with people

These robots are called collaborative robots, or "cobots", and often have superior; "eye-sight", dexterity, and infallible accuracy and reliability. All the things us normal humans do not have.

This is why cobots will increasing be seen working alongside us, and possibly as our supervisor in future generations.

Cobot Risk Assessment

However, collaborative robots working side-by-side with people must have specialised risk assessments and multiple levels of presence sensing and power limiting devices to minimise the risk of harm for the people in their vicinity.

Safety Standards for Cobots

The key Australia Standard governing design, implementation and operation of collaborative robots is AS 4024.3303: Safety of Machinery - Collaborative Robots.

"Watch out for a cobot working near you – tomorrow is not far away"

If you would like to know more about cobots call Gary Rowe, CEO Safety Action Pty Ltd on enquiries@safetyaction.com.au.

Safety Action Newsletter Survey

Give us your feedback for your chance to win a double movie pass!
Tell us what you think about our newsletter.

Click here to participate

Safety Role in New Zealand

One of our clients and friends have a vacancy for a senior HSE manager.
The business is in the electrical transmission and electrical retail sector.
The role is based in Auckland. If interested, let us know and we will provide contact details.

Testing Loud Alarm in Office Cost $2m

A worker has been awarded nearly $2m in damages arising from a portable alarm left in an office.

The computer draftsman suffered whiplash injuries when the defective gas detector left in the office suddenly activated.

The court found the company was vicariously liable for the negligence of the operations staff who left the faulty alarm in the office unattended, where workers not used to unfamiliar alarms or loud noises might be expected to react abruptly.

The logic of the judge was that the gas detector was designed to "go off suddenly" if a life-threatening situation arose where the risk of injury from a startled reaction was justified.

The court said safer alternatives were readily available to the operations staff including de-commissioning the gas detector by removing the batteries or storing it somewhere else.
