Attracting generation "G" to 24/7 control rooms

A well-known issue faced by industries around the world is the impending retirement of some of their most competent Control Room Operators. Industry is also finding it harder and harder to attract those with the relevant skills to take on the future generation of challenges that various complex control processes present.

Generation G - the gamers

For any organization to attract the Control Room Operators they need to sustain or even grow their business, they must first recognize not only the technology they will likely use, but also the human habits of those that will be using it. If a company gets this wrong, then simply using the best technology available may not necessarily translate into improved production or employee retention.

That being said, if we look at the habits of the potential future Control Room Operators, how they run their lives during work time and downtime, then the most dominant subjects become ‘Social Media’ and ‘Gaming Technology’. The Baby Boomers are about to retire and we are about to enter the days of Generation G - the gamers.
It is no secret that playing video and computer games is popular for the younger generation; it is also no secret that if we take away their smart phones or iPads, they will no longer be able to communicate with the outside world or more importantly - their friends!

In the US alone over 90% of those of school age, as well as young adults, play video games and over 70% of household owners use gaming consoles up to an average age of 33.

These groups use gaming technology for an average of 8 hours per week. And it is this generation that are likely to be the new generation of Control Room Operators.

**New skills for faster and more accurate decisions making**

Whether we like it or not, the young people that industry needs to attract for positions such as future Control Room Operators will come with a set of new skills.

According to studies, gamers were up to 25% faster at making a correct decision when faced with screen based problem solving tasks. As an example, skilled players of the online strategy game, Starcraft, perform up to 400 actions per minute. This is four times faster than those not from a gaming background. This and other games, present the gamer with highly active periods with a lot of alarms to be monitored and decisions to be made. These skills will make gamers highly effective as future Control Room Operators.

It is obvious that this generation will not be satisfied with the standards set by previous generation (several keyboards and a lot of different telecom equipment on the desk). This new generation of operators (iPad generation) are more used with touch interaction technology and they are accustomed to higher environmental standards, and happen to be great problem solvers (skill gained from gaming).

This is also the generation that carries around their entire world in their mobile phone, that expects immediate access to information and think nothing of interacting with global groups to solve problems during their gaming adventures. They are also the generation that are so well connected that they are informed of all their friends whereabouts 24 hours a day.

**New expectations from work environment**

As with all generational changes, the newer generation often sees the last as rather ‘backward’. This particular generation though has absolutely no fear of interacting with HMI’s and technology to solve complex multi-layered problems and in the process of doing that they are used to communicating globally to achieve that.
They build strong networks and discard the weaker ones to achieve their goals; they have a gaming situational awareness which us ‘parents’ can never understand; they are able to deal with many layers of conflicting information and survive and then at the end of that they can still do their homework.

It is expected that the arriving new generation of operators will be more highly educated than their predecessors although have less experience of the process and its safe and efficient operation. Training will need to pick up at pace although technology has the ability to mitigate some of the risks posed by this less experienced generation.

If recognized and accounted for, gamers’ skills will become a great asset for the industry. But whether we want to admit it or not, many young engineers and technicians often see the industry as uninteresting and unrewarding. The issue of the working environment has the ability to override conversations about the advantages of one particular technology over another.

No matter how we try to convince them a major ‘marketing’ exercise is required at all levels. We need to take our thinking a little into the future to attract, and then look after, this next generation of users. The best in class companies will strive to provide a work environment which is likely to deliver an experience that the gamers are both used to and enjoy.

How to impress the hard to please young engineers

At ABB and CGM, member of ABB Group, we are doing this in several ways. Firstly we are extremely innovative when it comes to the development of control system user experience and control room workplaces for critical 24/7 processes which fall both inside and outside usual automation network. We are also industry leaders when it comes to designing facilities which comply with (and exceed) the current guidelines. Our clients are offered Control Room Solutions which can easily impress even the most hard to please young engineers.

Giving careful consideration to the facility will attract the next generation whilst improving the standards of the current. To make skilled control room operators stick around, further attention to the Human Factors and Ergonomics is required.