How COVID-19 Generated a New Need of Collaboration Tools in Manufacturing

BY LUIGI DE BERNARDINI | WED AUG 26 2020

There's no doubt COVID-19 has already changed many habits in our personal and business life. We are learning to deal with the virus and the many constraints it's bringing to our daily activities. And there's no doubt as well that some of the constraints are becoming habits and some of them are going to survive the pandemic, because we discovered they are good habits. Many companies were forced to suddenly convert all the non-fundamental, on-site personnel into remote workers and find new innovative ways to maintain the level of connection they were used to when everyone was on site.

All the clients I spoke to, major manufacturers in several industries said it was not easy, but it worked in some way. Apparently, it worked enough since many companies are planning not to go back to on-site personnel at a pre-COVID-19 level. Having people work remotely has some positive effects, reduction of costs being first. Energy, cleaning, HVAC costs (not to mention transportation or Co^2 footprint) are significant and can be reduced

with a minor impact on efficiency. I'm personally still a little skeptical and don't believe that all the announcements of permanent transitioning to remote working will be confirmed in the long term, but I'm sure a few of them will, and companies will need to invest in collaboration tools to minimize the inefficiency that distance creates.

MS Teams and Zoom were between the most used, along with WhatsApp or Hangout. Basically, the tools people were already using to communicate in their personal or office activities. Sometimes people tried to adapt the tool to the specific needs (for example, creating multiple teams to try to map the company organization), but sometimes they adapted the organization to the capability of the tool or simply accepted using something that was not best fitting their needs. In the short term, this worked and solved the problem. In the long term, it probably will not be sustainable, since it will create inefficiency or overhead in communication.

I personally believe manufacturing companies will need to adopt a collaboration tool specifically designed for manufacturing, even if they are not so common in the current market.

A manufacturing organization (and I'm specifically referring to the operations) is a hierarchical organization with a very well-defined structure. For many years, industries with all sort of processes have been using the ISA-95 standard model as a foundation to clarify how information is to be used and shared in the factory. ISA-95 is a hierarchical model that describes the plant and the interaction between the various components. But it is even a clear representation of how the majority of plants are organized in terms of people and teams. This is a good way to describe even how communication need to be organized, in hierarchical levels, to be effective.

A good collaboration tool designed for manufacturing should be able to natively organize people and teams reflecting the ISA-95 model of the plant to guarantee that any information reaches the interested parties, but nobody else.

The tool should be easy, immediate, and designed to be appealing and effective both for people working inside the plant, in an environment not particularly user friendly, and people working remotely. It should be immediate to use and enable short and direct messages as well as files, pictures, and videos. It should shorten the distance of remote workers from the plant and from the problems.

One of the most interesting characteristics, in my opinion, should be the possibility to allow machines, production lines, or factory systems be part of the team. I would like to have a packing machine that autonomously send a message to the packing area team or to the packing area supervisor reporting its status, its efficiency, or any useful information. I would like to have in the communication flow short information on how production is going, on the reach ability of the shift targets coming automatically from the machines as part of a communication stream involving assets and users. Something much more immediate and "smart" than the typical reports that are triggered and generated in specific moments.

By having less people walking around the plant there will be less eyes recognizing problems and collecting information, so the system should be able to autonomously bring remote workers all the meaningful information needed to effectively collaborate with their on-site colleagues.

Effective collaboration will be, in my opinion, one of the main trends of the new to few years. A sudden change in normality requires to react fast and to solve the new problems as soon as possible with dedicated tools. The usage of generic systems will not be sustainable in the middle or long term. As for many other aspects, it will be a matter of being competitive in the market.

"It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change" is a statement commonly attributed to Darwin, even if probably he never really said that, that adapts very well to this new situation. Fast adaption to a new normal collaboration will be key!

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