



Technology and Innovation for Food and Service in 2021

MANAGEMENT CONNECTION

Technology and tools helping foodservice professionals work smarter and more efficiently

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The last 18 months have been without a doubt the most challenging for foodservice operators in their careers. The idea that things will “get back to normal” or thoughts of “let’s go back to the way it was” will not be an option.

The way to get past these tough times is to recognize there will be new ways to stay prepared for the next difficult challenge and to take advantage of innovative technologies, products, and services that have emerged. And to be certain, more innovations are on their way!

Manufacturers are busy developing equipment, tools, and supplies that foodservice operators will need to produce meals for our residents, patients, and guests with fewer team members, smaller kitchens, and the need to improve food quality and

service. This is a tall order, and it will need to be done in clean and sanitized kitchens and dining rooms. Staff and the individuals we feed must feel safe and well protected against infection and cross-contamination.

The good news is that technology and innovation can help us meet these challenges. It’s time to shift gears and set our sights to the future and find ways to work smarter and more efficiently. Let’s have a look at just some of the tools that are out there to help us move into a brighter day.

CLEANING AND SANITATION

Infections and viruses have been shown to be transmitted in many ways during the past 18 months. As a CDM, CFPP, we know what should and must be done on a daily basis to prevent



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the spread of disease, but we need some help managing this and making it more automated.

Air Filtration Machines

This past year has taught us that many of our buildings don't have proper air circulation and air filtration to remove airborne particulates. New construction projects will focus on improved HVAC technologies and filtration systems to meet the need, but what if we are in an older building? Over the past year, many portable air filtration machines have flooded the market. The idea of these units is to increase the number of times air circulates through a space and passes through built-in filters and/or UV light systems. They are designed to handle a certain square footage of space. Most units are fairly quiet and can be placed in spaces and rooms where larger gatherings occur, such as a dining room. Be sure to do your due diligence and research the different models in order to select the one that will work best for your operation.

Handwashing Timers

We know that handwashing is the bedrock of infection prevention. We also know that despite multiple in-services and competency checks, some staff members don't follow proper handwashing techniques by short-cutting

the process. Unless you require your staff to stand at the handwashing sink and sing the Happy Birthday song twice before walking away, a Handwashing Timer might be the solution to ensure your employees don't spread germs by not washing thoroughly.

Electronic Health Checks

As a CDM, CFPP, we know that coming to work sick is not a good idea. Over the past year, we have all had our temperatures taken and been asked about our health before being allowed in a building.

UV Lights

The use of UV (ultraviolet) lights to sanitize equipment, tools, and spaces has increased dramatically. There are UV cabinets to store knives and smallwares; there are portable units that can be rolled into areas to treat entire spaces, and there are UV wands that can be used in different types of spaces such as drawers and cabinets to kill microorganisms and pathogens.

Hand Scanners

Remember the scanner used during an in-service that



HANDWASHING IS THE BEDROCK OF INFECTION PREVENTION... A

handwashing timer might be the solution to ensure your employees don't spread germs by not washing thoroughly.

This practice is likely here to stay. The good news is there are many new devices available on the market that are quick and easy to deploy for both staff and guests. Some models even tie back to your time clocks and allow your teams the ability to store this information indefinitely.

covers proper handwashing? You were asked to wash your hands and place them under a device that shows all the bacteria that remained on your hands and under your nails. Now, there are wall-mounted units that can be placed next to the hand sink to highlight any bacteria that remains on the hands.

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Foggers and Misters

These units have been around for several years but over the past year, dozens of new devices have come out to dispense chemicals and disinfection formulas to sanitize each and every surface in a space. An electrostatic sprayer applies a positive charge to the chemicals as it is released into the air, which causes it to cling to all grounded or negatively-charged surfaces. They can be used after each meal period in a dining room to sanitize it, or at the end of the day in a kitchen and storage areas. Again, do the research and ask for references when deciding which model will serve you best.

BACK OF THE HOUSE

Smart Monitoring

Temperature monitoring is a critical part of any HACCP plan. It is required to be done throughout the day and can be time-consuming to the staff assigned to record temperatures. Many new pieces of refrigeration equipment have built-in devices that can connect to Bluetooth or the wireless network in order to continuously monitor temperatures. Alerts can be emailed or texted if there is a problem. This same technology is being built into

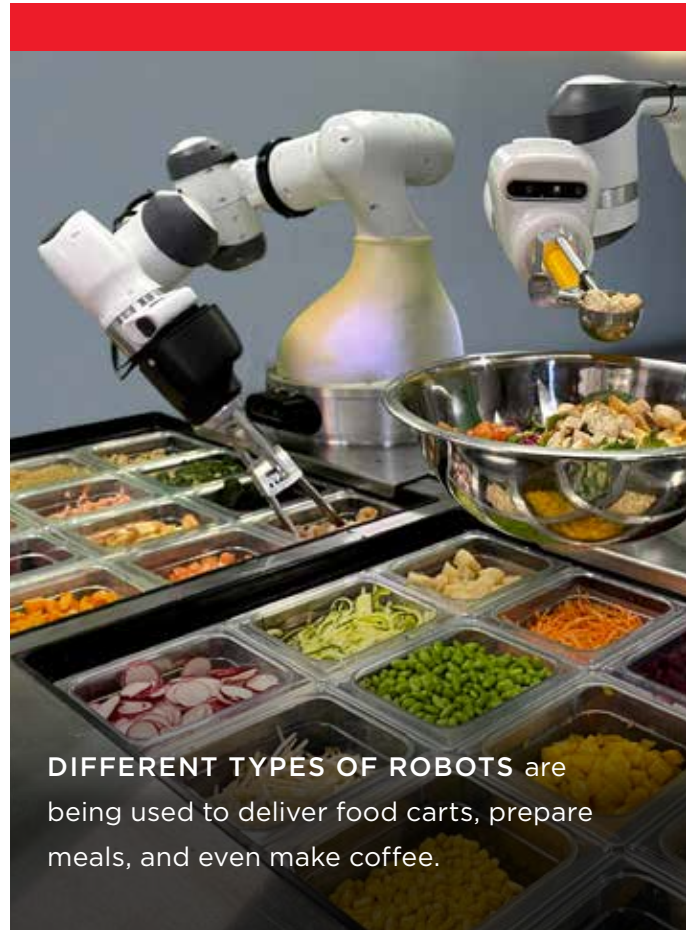
dish machines as well. There are also aftermarket systems that can be set up to monitor older equipment.

Robots

Different types of robots have been in use for a while in hospitals. Most are Tugs that can be programmed to deliver food carts to the different units. These units leave the kitchen and travel without help from any staff members. They can even signal the elevator and ride alone to the floors. When not in use, other departments such as laundry or material management can use them. Dining room robots are available to help bring food out of the kitchen. There are also fully-automatic robot vending machines that prepare meals such as pizza and salads that are made fresh to order. Robot baristas are also emerging. Many other robots are in testing and will be available to cook everything from burgers to stir fry meals.

Ventless Equipment

This is not new, but the list of available ventless equipment increases each year. We are no longer confined to the space under our hoods to install new equipment needed to expand our menu offerings. There are even high-temp ventless dish machines that can be installed where there is a water line and floor drain.



FRONT OF THE HOUSE

Touch-Free Payment Systems

To reduce touch points, many restaurants have stopped taking cash and ask that their guests use a smartphone to make a payment. Wherever there is a way to eliminate touch points, it helps further reduce possible exposure to disease.

QR Codes for Menus

Use of QR (quick response) codes has increased

dramatically over the past year. In some places, paper menus have been eliminated in favor of customers using their smartphone to scan and view the menu. Not all residents or patients will be on board with this concept so retain a supply of paper menus, but some may prefer the digital option.

Unmanned Grab and Go

Grab and Go options are a great way to expand serving times, service a greater number of people, and provide options for the staff. Many cafeterias use open air display

refrigeration to sell grab and go items, but what happens when the cashier stations close for the day? The solution may be unmanned reach-in units that use QR codes and credit cards to unlock the door to allow customers to pick out their choice of meal. These units require a wireless connection and can operate 24/7.

Pick-up Lockers

Take-out has always been popular, but it has gone to a new level. Customers can place orders online or by phone and pay for their food in advance. The prepared food is then placed in a locked unit that can be opened by using a code issued to the customer once they place their order. Customers can even receive a text alert when their food is ready for pick up.

Ordering Apps

This is nothing new, but the use of menu ordering apps has skyrocketed. Many senior living communities and hospitals have adopted this technology to encourage visitors and staff to place their food orders via an app.

EMPLOYEE ENGAGEMENT

Training and Career Development

The need to train and document competencies has never been more critical in

our operations. Leaders need to cross-train staff not only within their own department, but across other departments as well. Solutions are available for online training tools that are easy to use so that even staff members who are not tech savvy can use them. YouTube-like training videos have emerged as a way to make it easier to train employees and get them up to speed on their duties quicker. With high turnover rates, online programs can easily assign and



track training programs. So, the next time an inspector asks to see your training program and tracking, all that's needed is to run a report from the system and hand it over. We also must respond to younger workers who are looking for a career path. We all know that this is a major issue and that online training can help.

Digital Checklists

Everyone knows that food service runs on checklists and mock surveys. Old school practice is to have paper checklists filled out by each team member every day that supervisors and managers are supposed to be inspecting against. That is a lot of paperwork to keep track of and document! Digital checklists are emerging in the form of apps and touch pads. Each function in an operation

has online assignments that are preloaded and assigned to scheduled staff. Even regulatory or preventive maintenance tasks can be loaded into the system. These checklists can be easily tracked, and side checked. The tasks are documented and can be used for roll-up reports to management. These tools are designed

to increase engagement and personal responsibility on the job.

MORE INNOVATIONS TO COME

Each year we see improvements and new ideas coming to market to help solve problems and assist us in managing our operations easier and more efficiently. The key is to ask lots of questions of your peers and your suppliers for ways to handle labor shortages, smarter

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ways to track information, and strategies to reduce the amount of manual labor required to perform tasks.

Commercial kitchens will never be an easy place to work, but they can be more efficient, safe, and enjoyable for all involved. It's time we all "think outside the box" and use technology and innovation to improve our workplace culture. **E**

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- Which of the following cleaning and sanitation products gained popularity during the pandemic?
 - Portable air filtration systems
 - UV lights
 - Both A and B
- What is one possible solution if staff members are not washing their hands adequately?
 - A handwashing timer
 - Closed circuit TV at all handwashing stations
 - Using soaps containing essential oils
- Continuous temperature monitoring is made easier with appliances featuring Bluetooth or other network capabilities.
 - True
 - False
- Ultraviolet (UV) light is being used in the following ways in foodservice kitchens:
 - UV cabinets that store knives and smallwares
 - UV wands that can be used in drawers and other spaces
 - Both A and B
- Fully-automatic robot vending machines can be used to prepare meals such as:
 - Thanksgiving dinner
 - Pizza
 - A Mexican buffet
- Eliminating touch points in a foodservice operation
 - Reduces possible exposure to disease
 - Helps prevent broken fingernails
 - Minimizes the amount of tip required in a restaurant
- Digital checklists offer the following advantages over paper checklists:
 - Preventive maintenance tasks can be loaded into the electronic system
 - They increase staff engagement and personal responsibility
 - Both A and B

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