**More Demand for Robot Cooks in US Restaurants**

**美国餐厅需要更多机器人厨师**

Robots that can cook are in growing demand in the United States. The increased demand comes at a time when eateries are trying to put some distance between their workers and customers during the coronavirus health crisis.

美国对会做饭的机器人的需求越来越大。冠状病毒健康危机期间餐馆希望员工和顾客之间保持一定距离，由此带动了对机器人厨师的需求。

In a few weeks, White Castle restaurants will test a robot arm that can cook french fries and other foods. The robot, called Flippy, is a product of Miso Robotics, a company based in Pasadena, California.

几周后白色城堡餐厅将测试使用一种可以烹饪薯条和其他食物的机器人手。这款名为“飞力”（Flippy）的机器人由位于加利福尼亚州帕萨迪纳市的Miso Robotics公司出品。

White Castle and Miso have been discussing a partnership for about a year. Those talks intensified when COVID-19 arrived, said White Castle Vice President Jamie Richardson.

白色城堡和Miso公司已经就彼此的合作关系协商了近一年。白色城堡副总裁杰米·理查森表示，新冠肺炎爆发加剧了这一谈判。

Richardson said the robot can free up employees for other jobs like cleaning tables or taking food delivery orders. A touch-free environment is also increasingly important to customers, he said.

理查森表示，这种机器人可以让员工自由地去做其他工作，比如打扫桌子或去送餐。他还说，无接触式服务对客户也越来越重要。

“The world has just reshaped in terms of thoughts around food safety,” Richardson said.

理查森说：“人们对食品安全方面的思想刚刚发生了新的转变。”

Flippy currently costs $30,000, with an additional $1,500 required for monthly service. By the middle of next year, Miso hopes to offer the robot to restaurant operators for free but require a higher monthly fee.

Flippy目前价格为30000美元，每月需要另付1500美元服务费。到明年年中，Miso希望能免费向餐馆经营者提供这种机器人，但月费将会提高。

Robot food service was becoming popular even before the coronavirus pandemic. Hospitals, college dining areas and other places tried to meet demand for food while keeping labor costs low. Robot chefs appeared at places like Creator, a restaurant in San Francisco.

机器人餐饮服务早在冠状病毒大流行之前就开始流行了。医院和大学餐厅以及其他一些餐厅希望在保持较低劳动力成本的同时满足为顾客提供足够食物的需求。旧金山的Creator餐厅就有机器人厨师。

Now, some say, robots may become necessary for the food service industry.

现在有人说，机器人可能成为食品服务业的必需品。

The U.S. Centers for Disease Control says the risk of getting COVID-19 from touching or eating food outside the home is low. Yet there have been several outbreaks of disease reported among restaurant employees and customers.

美国疾病控制中心表示，在外接触或食用食物导致感染新冠肺炎的风险很低。然而，据报道餐馆员工和顾客间出现了几起病例爆发。

Vipin Jain is the co-founder and head of Blendid, a Silicon Valley startup company.

维宾·贾恩是硅谷创业公司Blendid的联合创始人和负责人。

“I expect in the next two years you will see pretty significant robotic adoption in the food space because of COVID,” Jain said.

贾恩说：“我预计在未来两年内，由于新冠疾病机器人在食品领域的应用量将会相当可观。”

Max Elder is research director of the Food Futures Lab at the California-based Institute for the Future. Elder wonders about the future of robots once the pandemic has eased.

麦克斯·埃尔德是位于加州的未来研究所食品期货实验室的研究主任。埃尔德对大流行形式缓解后此类机器人的未来心存疑虑。

“Food is so personal, and it needs to involve humans,” he said.

他说：“食物非常私人化，而它需要人类参与其中。”

Elder also worries about other problems in the food system - like outbreaks among meat industry workers or workers collecting fruit and vegetables.

埃尔德还对食品系统中的其他问题表示担忧，如肉类行业工人或果蔬产品采摘工人间的疫情爆发。

He also talked about the limits of automation – the process of replacing human workers with robot workers.

他还谈到了机器自动化的局限性——用机器人代替人类工作的过程。

“We can’t automate our way out of the pandemic because the pandemic affects much more than what can be automated,” Elder said.

埃尔德说：“我们无法通过机器自动化走出大流行，因为大流行的影响远远超过自动化可以涉及的范围。”

Automated food companies say that they are not trying to replace human workers. At White Castle, Richardson says Flippy will give restaurants the ability to move workers to drive-thru lanes or redeploy them if other employees call in sick.

自动化食品公司表示，他们并没有试图取代人工。白色城堡餐厅的理查森表示，Flippy将提高餐厅及员工的工作效率或在其他员工请病假时重新进行人力安排的能力。

But, some observers say, robots can lower the demand for labor. At the University of Arkansas for Medical Sciences in Little Rock, café workers used to spend six hours per day making salads, notes Tonya Johnson, the school’s director of nutrition services. But two years ago, the university added a Sally, a kind of robot that now makes around 40 salads per day. By adding Sally, the school was able to remove a job opening in its cooking staff, Johnson said.

也有一些观察家表示，机器人可以降低人类对劳动力的需求。小石城阿肯色大学医学院的营养服务部主任托尼娅·约翰逊称，曾经咖啡馆的工作人员每天要花六个小时做沙拉。两年前该大学引进了一个叫萨利（Sally）的机器人，它现在每天能做40份沙拉。约翰逊说，引进萨利机器人后该大学取消了餐饮部的一个工作岗位。

 “I think the pandemic has made us realize how much we need more equipment like Sally,” Johnson said.

约翰逊说：“我认为大流行使我们意识到我们有多需要像萨利这样的设备。”

Miso Robotics co-founder and chief Buck Jordan said fast food restaurants are already having trouble finding workers, partly as a result of a shrinking population of young workers.

Miso机器人公司联合创始人兼首席执行官巴克•乔丹表示，快餐店已经面临招工困难，其中部分原因是年轻员工数量的减少。

Jordan added that his company’s position is that “automation is not a choice.” He added, “You must automate in order to survive the future.”

乔丹补充道，其公司的立场是“自动化不是一个选项。你必须实现自动化才能在未来生存。”

I'm John Russell.

约翰·拉塞尔报道。

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