

Roboting Yum Cha

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I had never been served in a restaurant by a robot before last week. I didn't even know there was such thing. I came across them in a White Paper on Food AIs which discussed them.¹

... service robots currently in the food service industry are rulebased automation interfaces ... Service robots in a restaurant are programmed to bring food to tables or carry out simple delivery tasks. While they typically follow designated paths and have basic obstacle avoidance systems, service robots and digital ordering interfaces often require human assistance to handle requests that fall outside of their preprogrammed capabilities.²

I went online and found hundreds of images of them from a basic set of trays on wheels to ones which were like something out of the Jetsons³, a weird conical shape with a 'head' and 'eyes'. I was hooked: the food nerd in me had to try it. I found a Chinese restaurant in Sydney which advertised that they had service robots at yum cha. Thus it was I and a cohort of food adventurers climbed the stairs to the first floor dining room to have yum cha with robots.

Yum cha for me, a Western food nerd, is about two things – the food and the mode of dining centred around women making circuits of the dining space - like a sushi train - pushing trolleys on which are bamboo or ceramic containers of two or three dishes and a container or two of sauce – each trolley having a different set of dishes. As they circulate they bring their trolleys to your table. They tell you what dishes they have, often holding them tilted toward you with a pair of tongs so you can see before you buy. Sometimes a trolley woman goes past your table seemingly ignoring you – so you take action and ask what they have on offer and they come back to your table, sometimes a tad grudgingly as this breaks the onwardness of the circuit. Sometimes you notice a nearby table has a dish you would like and you ask a passing trolley woman if they have it – it's a long shot and usually they don't but they assure you someone will come by who does – except of course they don't before you have long given up and eaten your fill of other dishes. If you want a specific dish you ask them as they go past you if they have the dish at yum cha today and this time it's just a simple if brusque yes or no. Often desserts will circulate at the same time because of the staggered dining time as diners come and go. Sometimes a dish must be 'finished' at the table – like a stemmy green which is cut with scissors and has a sauce poured over it: a nice bit of theatre. Though really for me all the interaction with the trolley women is theatre from the presentation of a dish from the trolley for your consideration to the flourish with which the dish is placed on the table.

¹ McColl-Kennedy, Janet R., & Hine, Damian C. (2024). (eds.) *Food AI: A game changer for Australia's food and beverage sector*, White paper, Innovation Pathways Program, Australia's Food and Beverage Accelerator (FaBA), The University of Queensland, 84 pp. I found it by chance and have no idea how and to whom it was distributed.

² Lee, A., Akhlaghpour, S., Bougoure, U., Breidbach, C., Kriz, A., Ryland, J., Subedi, Y., Van der Pols, J., & Wang, M. (2024) *AI for transforming food services*, in McColl-Kennedy, J.R., and Hine, D. C (eds.) *Food AI: A game changer for Australia's food and beverage sector*, p.45

³ (a 1960s television cartoon programme about a space age family who had a robot maid complete with apron),

Tea appears early in the meal and the teapot is refilled on request, sometimes signalled by up- turning the lid of the teapot. Because you are ordering from trolley to trolley there's a tendency to over select: you never get a full picture of your meal. You can attempt to assess this by how many dishes are on the table and what's in them but often they get taken away before you begin to wonder how much you've eaten. And there's always that last trolley which you just know has something you will like. Or you can count the number of entries in the running tab at the table on which the trolley women note what they have given you, which is what you take to the cashier to pay.

The tables are close together crowding the diners. More than a buzz there is a cacophony, yum cha lending itself to loud animated conversations. All the while the room is perfumed by dishes as they circulate on the trolleys.

For me, it's the randomness of the presentation of dishes, the anticipation as you wait for your favourite dish to appear or a distantly seen dish to arrive at your table, the reveal of what the trolley offers you, the pleasure in choosing dishes – like a kid picking lollies from the array at the supermarket counter- and the human interaction in the whole process that are the core of the experience – apart from the food, of course.

The service robot yum cha model where I dined was the complete antithesis of this. The first thing I noticed was the absence of women pushing trollies, an early indicator of how different this yum cha will be. There is just one robot on the floor where I had been expecting several if not quite a fleet. It seems to be sleeping beside the kitchen door. The tables seemed further apart to allow the robot to travel unhindered. The cacophony is deadened, more like a restaurant than yum cha. Actually, the whole ambience is restaurant. The room feels sterile, lacking the aroma of yum cha dishes. At the table is a large card bearing the names and images of all the dishes that are available and their price. It's like a menu you get at restaurants that accompany the names of dishes with images but all on the one page. In the top righthand corner of each image is a small blank box. I look over the menu as I do in a restaurant and select a dish by putting the number of servings I want in the box –there is a felt tip pen to do this. So, there is no surprise as to what I will dine on. There is also no running tab at the table. Ther bill is totted up and itemised off-stage. As I make all my choices at the one time I have more control over how many dishes you order. The card is laminated so it can be cleaned ready for the next group of diners. It's taken away to the kitchen where the orders are prepared. I didn't look into the kitchen but I bet that our scrawl on the card was not read by a robot but a human. For that matter I didn't see if they had any advanced robots making any of the dishes though it may well happen in the near future. There already are advanced robots making salads, pizzas, breads, mixed alcoholic drinks, and desktop gelato.⁴

Orders filled, the plated food is loaded onto the service robot which here really is just a series of trays with a cat-like face at the front and a rear which displays the number of the table to which the dishes are to go. (See picture)

⁴ Chen Feller, '10 robots automating the restaurant industry', Chen Feller *Fast Casual* 2021



The robot then glides its silent way to my table along a pre-figured path to a pre-figured point at the table followed by a waiter. When the service robot stops at the table the waiter takes the dishes from a tray and puts them on the table. The robot goes back to its station near the kitchen door. The robot has no part in clearing away dishes.

The one constant human interaction in both models is getting your tea refilled: one of the tasks that at least for the moment 'fall outside of (the service robot's) preprogrammed capabilities'.

For me, the service robotic yum cha dining model ends up being just like restaurant dining with fewer staff. The randomness, the anticipation, the pleasure, the surprise and most importantly the trolley women are gone.

Addendum:

This is the second version of this article. The first was rightly criticised for not considering the commensal role of yum cha for Chinese diners. And so not seeing the positive changes that service robots might have for them. I offer my sincere apologies for this.