

# INDUSTRIALIZATION OF THE PROCESSES IN THE KITCHEN

Robert Tomic, Peiying Han, Christoph Luchsinger

E260 Institute of Urban Design and Landscape Architecture

## INTRODUCTION

The Cloud as an idea has existed for more than twenty-five years.<sup>[1]</sup> It has been the main tool of information processing and exchange in the business world. More and more, however, it has grown out of the business sector and have entered the personal sphere. It is the crucial part of Industry 4.0, serving as the primary connection between the production and end customer.

As technology evolves, Industry 4.0 is becoming more and more personalized, finding its way into areas where it was once impossible to even imagine it. The kitchen is one such place, where Industry 4.0 can play an important role in the future in areas such as waste reduction, reduction of the wastefulness of resources, availability of bioorganic produce and its freshness, and more, by equalizing food production, packaging and distribution with the consumer purchase and preparation.

Such equalization could be achieved through the use of the Cloud.

## EXPERIMENTS / FUNDAMENTAL OF THE PROBLEM / EXAMINATIONS

The project Kitchen was developed by Christoph Luchsinger and his team as part of the Rijeka Open City Concept at the Institute of Urban Design and Landscape Architecture at Faculty of Architecture and Planning in Vienna for the European Capital of Culture 2020 based on the general concept of the Kitchen.<sup>[2]</sup> The Kitchen contains many different aspects of the city of Rijeka, such as the history, way of life, food and culture of its inhabitants. As part of this section of the project, the idea for the industrialization of the processes in the kitchen was developed.

The idea is for a service that would allow for the end user to identify which ingredients they would need for their meal and their quantity, and on the other end, contain information regarding the availability of those ingredients within or without the city limits at that exact moment. The system would offer rapid delivery of fresh ingredients to the end user's location of choice, whereby those ingredients would not be pre-processed in any way, but would come straight from the source at that moment (e.g. fruits picked from their trees, rather than harvested, processed and packaged days previously). This would not only allow for a better regulation of production in direct response to the demand, thereby avoiding unnecessary overproduction and wastefulness of unneeded produce, but also boost urban farming with the goal of the reduction of overexploitation of the rural natural resources.

The second concept that the service would offer would be for the purpose of connecting people within the community by promoting the idea of 'kitchen sharing': the user would decide whether to order only the ingredients, but also the service of either 'kitchen renting', where individual users would offer their kitchen space for use, or meal preparation, whereby established cooking services at predetermined locations would receive the recipe and the food, and prepare it for the user. Two main types of end-users would be easily assigned to these categories: the city residents would be most likely to use the food ordering, at most the kitchen renting service with their acquaintances from their community, while tourists would be far more likely to use the cooking services, or

perhaps kitchen sharing if they wish to meet the locals and familiarize themselves with the customs and culture of the city.

## **RESULTS AND CONCLUSION**

The expected result of this study would be app development and identification of necessary resources (e.g. locations for the cooking services, product suppliers, transportation systems, etc), together with a guidebook for the local government with respect to legal food regulations as they might pertain to this system.

Rijeka is a perfect city for the experimental implementation of such a system, given its recent attempts at citywide changes with the aim of pulling out of stagnancy, and connecting this system to an already established project such as the Rijeka Open City Concept would allow for a potentially easier implementation and integration within a wider concept of promoting the culture and customs of the area.

Finally, a system of this kind would contribute towards the streamlining of a previously top-down process beginning with food production and ending with meal preparation, by equalizing all the individual steps and allowing for direct communication different levels of the process.

## **REFERENCES**

[1] AT&T (1993). "What Is The Cloud?". Retrieved 2018-03-08. "You can think of our electronic meeting place as the Cloud. PersonaLink was built from the ground up to give handheld communicators and other devices easy access to a variety of services. [...] Telescript is the revolutionary software technology that makes intelligent assistance possible. Invented by General Magic, AT&T is the first company to harness Telescript, and bring its benefits to people everywhere. [...] Very shortly, anyone with a computer, a personal communicator, or a television will be able to use intelligent assistance in the Cloud. And our new meeting place is open, so that anyone, whether individual, entrepreneur, or multinational company, will be able to offer information, goods, and services."

[2] Team RI:2020 (2016), Bid Book, 59-62