## Complete but isolated

## Introduction

Continuing from my interaction paper about Aspire park, designing

something aesthetically and functionally is not the end; rather it's just the first step.

The next step is a sustainable and integrated execution of the design with its

surroundings, people, city and even the country itself. One of biggest issue that

exists in the urban experience in Qatar is the lack of integration in all scale of urban

design. Starting from the smaller scale like the buildings, sidewalks to larger scale

like the vision of Qatar, connectivity in cities; although all of them are implemented

and functional, yet they are isolated, independent of each other. In this paper, I'll

analyze how the lack of integration in Qatar's urban experience is a "wicked

problem" and address the problem through a holistic design perspective aided by

Buchanan's *Four Orders of Design*. Later on, I'll illustrate some human-centered

design approach to address the problem through analyzing few urban design in

Qatar.

## Wicked Problem

According to Buchanan (1992), most of the problems addressed by designers

are wicked problems. He quoted Rittel in his text defining wicked problems as a

"class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramification in the whole system are thoroughly confusing" (1992, p. 14). Wicked problems are ill-structured and intractable which is why it makes them hard to address and almost impossible to solve.

Wicked problem exists in almost every sphere of life ranging from education, energy to weapons trafficking, arms law in any plan on earth. In Qatar, one of the most important wicked problem that exists in its urban design is the lack of integration between the spaces and people. Although some of its emergent urbanism like Souq Waqif which are self-organized with de-centralized control are somewhat assimilated with its surroundings; but most of the mega urbanism like the West Bay, Education City which are planned and centralized control are isolated with each other and its surroundings. To validate it as a wicked problem, we'll analyze it with the ten properties of wicked problem identified by Rittel:

1. Formulation: Wicked problems don't have any definitive formulation by which it exists and its characteristics to be identified. Similarly, urban design in Qatar could be apparently similar to that of Dubai but yet they could be totally different. Therefore, isolation in Qatar's urban design has no particular formula either.

2. Success: Measuring success of solving a wicked problem is close to impossible as it doesn't have an end point and can easily lead to another

problem. In the case of urban experience, it is really hard to measure the success by any specific factors and ignore others

3. Mitigation: Solving isolation and connecting urban plans in Qatar perfectly is impossible, however it can be mitigated and the situation can be improved which is a characteristic of wicked problem.

4. Procedure: While solving a wicked problem there isn't any particular list or template of operations to be performed. Most of the things to improve the situations are improvised on the spot. As for tackling the urban design in Qatar, there isn't any exhaustive list either.

5. Trace: In a wicked problem every advancement leaves bunch of sign that can't be reversed. Reversing them can lead to further dilemmas. Similarly, connecting urban design can lead to steps where it can confuse the people about the past and the present.

6. Interconnectedness: One wicked problem is a symptom of another and the socio-economic aspect of the urban experience makes it related to other factors. Therefore, changing the diversity of people in an area can hugely impact in economic consequence of the area.

7. Testing: There's no definite test for formulation or solution of a wicked problem. So mitigation strategies can't be proven to successful or failure.

8. Unique: Every wicked problem is unique. Therefore, adopting strategies for what worked in integrating New York city wouldn't necessarily work for Doha.

9. Interpretation: The way a wicked problem can be interpreted could be multiple and it depends on the perspective of the designer. So a designer observing the lack of integration in Doha can be different than a designer observing the difference in Doha urban planning over time.

10. Liability: Designers are liable for the consequences of solving a wicked problem. Therefore, there's no room for error. Similarly, if a designer fails in integrating the Doha city it can result in conflict of space and disruption of public and private life.

## Analysis

Now to analyze the urban design in Qatar we'll use Buchanan's four orders of design to address the wicked problem in Education City. Education City is one of the primary example of instant big-bang urbanism which is centralized planned with a tight visionary controlled development. We'll illustrate how it even being functional and aesthetical, it still lacks integration in its environment.

Now starting from the first order of design which is **communication**, it looks into the most fundamental properties of design. First order of design includes data, words, images, information and other 2D objects. As Weaver (1949) claims communication as a procedure by which one mind can effect other basically through information. However, there exists noise which if introduced in the

communication system, can lead to problems for the receiver to understand the message intended by the sender. In the Education City, the implementation of communication has been great and quite effective in terms of delivering information and messages. Communication in Education City has mostly minimized noises and information required to be delivered to universities, faculties, students has been moderately being good. It has been really successful in overcoming technical issues which can alter the accuracy of information; through its connected e-mail and other technological communication. It has also been effective to overcome semantic issues that can change receiver's interpretation of a message. The intense translation program in the campus have mainly helped to deliver message to people without any semantic issues. However, the influential issue of the Education City could be considered to be an affair due to the considerable less effectiveness of the message for the receivers to act on it unless being reinforced. One of the great example of it can be seen at people getting stopped in front of closed roads which are announced earlier via emails and other communication methods. This shows the lack of effectiveness for the users to act on it.

Heading on to the second order of design, it looks into the **construction** element of a system. The elements that fall under construction includes 3D world, objects, artifacts, architectures. In terms of construction, Education city has one of the most effective form of design. The architecture, artifacts inside the campus supports the claim through the useful-usable-desirable framework. As Goldberg

(2014) states, "Architecture is the ultimate physical representation of a culture". In respect to usefulness of the architecture in the campus, it indeed has numerous benefits from proper shading to natural lighting, fresh open space in green spine etc. While in terms of usability most of the artifacts in the campus are really easy to use and convenient. The convenient object ranges from the majlis sofa, to the food court chairs, coconut sofas. While some of the objects might be ineffective including the light switches, room outline for different courses etc. Now moving onto the desirability aspect there exists some mixed feelings, while some positive desirability derives from advanced technology, world-class architecture; negative desirability arrives from adoption of the objects in this part of the world. The undesirable aspect includes the placement of the different campus far from each other, constructing a large 4 lane road between the campuses etc.

Building on the undesirable aspect of the construction, it leads to negative feeling towards the third order of design which is **interaction**. Interaction deals with the 4D world which includes experience, interactions, services, processes etc. In terms of interaction, Education City doesn't do a great job due to its conflicting design actions. While it established multiple world-renowned universities in a given space, it didn't position them near to each other and keeping it open from students from other universities. As a result of which the experience of having a connected campus has been broken. In addition to the action, the service and process by which the transportation system works is also flawed and lacks the required mobility

for the students to commute from one part of the campus to another or even move freely between the traffic. Therefore, even though there remains an opportunity to connect the buildings together, the flawed process and action leads them to be isolated from one another.

Now heading on to the fourth and final order of design which is the **integration** of a system that deals with the interconnected system including environment, cultures and organizations. In terms of Education City, the environment as well the culture plays a crucial role in shaping its whole environment. The extreme weather condition accompanied by humidity in the region disrupts physical activity performed by the people inside the campus. The regional culture of adopting multiple international institutions for the first time has also hampered the aim of the campus which is to make a community of intellectuals in order to bring a change in the society. The local identity of nationalized pride, privacy and modesty have often been not aligned with the liberal view of the institutions and the stakeholders in it. This overall leads into a conflicting viewpoint of interconnectedness of the system. Besides within the Education City, there has been lack of integration between the campus and its surroundings. It's more of being compared to one of the few oases in a desert which is not directly linked to other oasis. So, although Education city is self-sustainable and functional within the campus, it lacks in integrating with its surroundings.

## Final Words

Urban experience in Qatar is mostly in smaller specific isolated to its surroundings. The instant big-bang urbanism which are centralized and planned, visionary tightly controller developments are scattered all around the country with almost no link to each another. Instead of connecting them together to advance for the vision of Qatar, they mostly compete in terms of reaching the most popularity. What Qatar needs is not a façade and delusional adoption of a foreign vision in a controlled environment; it requires self-organized developments with little to no centralized control, more emergent urbanism like the Souq, more green spaces where people can balance out their public life with their private life like Aspire park, more planned development driven by data and policy like the ring road system and finally an alternative approach to any problem without using intensity. Therefore, using efficient approach over intensity, for example instead of increasing the lane of a crowded road in West bay, making it a one-way road to drive the traffic out of the area. Wicked problems are close to impossible to solve, however it can be addressed and it can be mitigated. It is now most important to address these wicked problems than it ignore it because Qatar deserves the best.

# Reference

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