

Qualities of Public Health. Towards an Analysis of Aesthetic Features of Public Policies

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Abstract

Design is gaining popularity as a way to address complex social problems in various fields of practices. Strangely, public health which, by nature, is concerned by such kinds of problems, remains foreign to this way of thinking. Building on the increasing popularity of design in policy making, we stress that public health could also benefit from this conceptual yet pragmatic framework. To open a critical perspective about the potential of design for public health, we examine four design projects that address social determinants of health and whose outcomes promotes healthy living habits. Finally, we argue that the interest of design for public health lies on its concern for the users' aesthetic experience emerging of its encounter with the touchpoints that embody health policies. This contribution ought to act as a stepping stone to open a debate about design as offering a critical perspective for the practice and study of public health.

Keywords: *Public Health; User-experience; Aesthetic Experience; Social Innovation; Social Design*

Since the turn of the 21st century, design has appeared more and more as an innovative approach to complex social problems (Manzini, 2015; 27^e Région and Scherer, 2015; Miller and Rudnick, 2012). But this recognition of design for policy development, social innovation, and public services seems to follow a path that sets social design, public design, and policy design apart from the development of more traditional design fields, notably product design. For instance, although industrial design is fairly well recognized in the health sector where it has been called upon to contribute to the quality of health care facilities (Miller, Swensson and Robinson, 2012), delivery (Bak and al., 2014; Bate and Robert, 2007) and technology development (Altringer, 2010; Blakeney and al. 2009; Lehoux and al., 2011), design, or social design, has still to demonstrate its potential value in the public health sector. This paper aims at proposing a theoretical ground on which to build the contribution of design to this sector, defined as a practice which seeks to understand and favor the conditions of population health (Fassin, 2008). In this subdomain of the health sector, there exist a relatively large consensus about the structural determinants of health. These are usually summed up by fundamental causes like poverty, education, social capital, or living conditions (Link and Phelan, 1995). While shedding light on the quality of experience offered by public health policies and measures, a design approach to population health opens up a new perspective on some

lingering problems like the rise of STI among young adults, the increase of sedentarity, and food safety. It expands the specter of determinants considered in this domain, including factors that condition the very adoption, and use of devices, or, as Sen would put it (2012; Monnet, 2007), the conversion of a rightful access to healthy living into everyday practices. In that perspective, appealing to the concept of aesthetic experience (Forsey, 2013; Shedroff, 2009; Saito, 2007, Berleant and Carlson, 2007), seems an effective way to foster a fruitful cross-breeding between design, and public health measures and policy development.

Our proposal is based on the description of four students projects in social design. It refers to concepts and categories of realist and analytical aesthetic (Pouivet, 2006; Réhault, 2013) to define the qualities relevant to user-experience of public health policies. Design students projects are used as exemplars of devices that, through the qualities they display, support citizens access to healthy modes of living. The purpose of this analysis is to try and identify what constitutes the information base from which the qualities of an experience triggered by a policy can be derived, and to sketch a protocol through which qualities can be derived from such information base.

What is at stake here is twofold. On the one hand, there is a certain indeterminacy about what makes the quality of immaterial objects although research tends to put qualities—of services, of policies, of technologies—as subjects of increasing interest (Bate and Robert, 2007). When trying to define what constitutes a responsible health innovation, one is forced to admit that what gives it its “responsible” character cannot be limited to the sole features of the devices that give it its concrete form (Findeli, to be edited). Incidentally, there is a correlative indeterminacy about the way we can assess such qualities as they unveils through user-experience of services or policies. On the other hand, there is still a vast array of questions about how and why many public health measures fail to reach their goal, outside of the usual financial burdens that limit their implementation.

In this paper we first examine how the attention given to user-experience can contribute to the expansion of the social scope of design. Second, we present why it seems relevant to bridge design with public health. We then present our analyses, pinpointing the “dispositional features” of different devices that offer the base for the emergence of an experience that displays a certain quality. Through our analysis, we try to offer an example of how design can build its specific contribution to public health.

2. User-experience expanding the social scope of design

Design is often looked at as a product centred practice where the goal is the enhancement or the shaping of beautiful, enjoyable and useful artefacts. If that might have been the general case 50 years ago, things have changed since (Vial, 2014; Fallan, 2010). At least over the past 30 years, designers shifted their professional activities toward lifestyle and user-experience through the design of information, services and systems (Redström, 2006). Bike sharing services are good illustration of that conceptual shift. In such projects the bike is not an end in itself, but merely a part of an ecosystem of touchpoints embodying a service that ought to see people adopt new living habits. Here, the habits are the definitive objects of design, and user-experience is at the base of the quality attributed to the service. Incidentally quality depends on

users' capacities, values, biography whose understanding becomes a crucial part of design. This phenomenon has been characterized by Findeli and Bousbaci as a process that leads toward what they call the *eclipse of the object in design theory* (Findeli and Bousbaci, 2005). As a matter of fact, the designerly way of framing problems (Dorst, 2015; Schön and Rein, 1994; Simon, 1969) has yielded important insights on the role and importance of user-experience for the success of any policy or public services.

2.1 User-experience as a shared object of design and public health

Before discussing how to connect this contemporary conception of design with public health, we need to lay the ground and clarify through which door we see design entering the realm of a field in itself hard to construe. Indeed, public health contours are blurred by the fact that it is as much a science as a practice (Fassin and Dozon, 2001). When we look at the American Public Health Association (APHA) definition, we discover that any action that might affect or improve the environmental conditions of health or our understanding of them would be considered to be falling under the umbrella of public health.

Public health promotes and protects the health of people and the communities where they live, learn, work and play.

While a doctor treats people who are sick, those of us working in public health try to prevent people from getting sick or injured in the first place. We also promote wellness by encouraging healthy behaviors.

From conducting scientific research to educating about health, people in the field of public health work to assure the conditions in which people can be healthy. That can mean vaccinating children and adults to prevent the spread of disease. Or educating people about the risks of alcohol and tobacco. Public health sets safety standards to protect workers and develops school nutrition programs to ensure kids have access to healthy food.

Public health works to track disease outbreaks, prevent injuries and shed light on why some of us are more likely to suffer from poor health than others. The many facets of public health include speaking out for laws that promote smoke-free indoor air and seatbelts, spreading the word about ways to stay healthy and giving science-based solutions to problem¹

In a nutshell, public health is concerned by the various determinants, material environment, social environment, individual behaviors, health care access, genetics, that affect people's health (Lalonde, 1974).

Therefore, because design aims at shaping the material and social environment as well as the behaviors of communities, we argue that the quest for these features of a daily healthy

¹ <https://www.apha.org/what-is-public-health>

environment represents a shared object between design and public health². Yet despite having this common object, what is exactly the contribution of design to public health? What is the proper added value of design to the methods, approaches and knowledge developed in the field of public health? What are the contributing concepts that are at stake in this collaboration?

3. Research context

To explore the conceptual framework that supports the building of bridges between design and public health, we will examine four design diploma projects.

Using students' work is a common strategy in design research. For one, many emergent fields of practice in design stem from academic research and in that sense universities offer the only context where one can access the data needed to describe and analyse such practices and their outcomes. In fact, professional practitioners seldom accept to skew their practices to allow for the production of the necessary data or simply to let observational inquiry on their work be performed. Moreover, educational environment offers a very flexible context where ideal forms of practices can be experimented and assessed. Of course, such strategy entails a few shortfalls due to unrealistic experimental conditions. One might well argue that the stakes facing real practice can never be matched through educational curriculum. Also, by definition, students, however good they are, seldom show the same level of proficiency than seasoned professionals. Nevertheless, since our goal is exploratory, seeking how design can help ensuring quality of future public health policies, we are fairly confident that the somewhat artificial context of a school assignment does not disqualify our findings altogether.

The design projects discussed here are the results of the individual effort of four undergraduate students, at the University of Montreal School of Design, for their diploma project. The diploma project is a two semesters individual project where students must demonstrate that they have acquired the skills and knowledge to pursue a career as professional designers or graduate students. The diploma project is divided in two phases. During the first phase (research phase), fall semester, students are required to explore the scope and definition of their design problem and demonstrate their understanding of the topic, translating it in terms of design criteria. This first phase ends with a formal end of term presentation where a jury assesses the robustness of the process, as well as the student's reasoning and methodology. For the second phase (development phase), winter semester, students are expected to engage in the development and validation of an actual solution for the identified problem.

At the start of the year, students propose a topic they want to explore but their proposition must respect a limited number of tracks defined by supervision teams, composed of full time professors assisted by research or professional fellows. One of the track offered to student at the School of Design is the social design track which is led by members of the Design and society research group. For the 2016 promotion, eight projects successfully took place in the social design track. Out of those eight projects, four are particularly insightful to stress the

² The problem that remain nonetheless is that public health authorities don't naturally go to designers to help them address their problems. Or if they do, it is with the limited understanding of design as form giving (gestaltung). But they do so mainly because the design community itself hasn't made clear what is that they can bring to public health.

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5. Method and Result

To analyse the students' projects, we first looked into the work done during the research phase

to present the general problem tackled by students and examine, if not obvious still, what are the specific issues that correlate the projects to public health. Analysing the work done during the research phase allows us to reveal how those problems were framed into effective design mandates. Finally, through a close inspection of the development phase and of the final design solution of the students, we discuss the kind of experience engaged by those propositions and the different features they display. It is the experiential quality of those features that will serve as our unit of analysis to discuss, in the final part of the paper, the innovative contribution design may have on public health.

5.1 Community Kitchen in food desert community

Problem setting and mandate

This project considers the problem of bad eating habit. The project was set in the Montmagny region, a rural community in the Canadian province of Québec, where an important part of the population lives in precarious condition in a food desert area. This general problem translates in specific public health issues in the sense that limited commercial access to various produces makes it difficult to people and families to adopt good and healthy eating habits. The design mandate that emerged from this situation was to enable healthy eating habits amongst precarious population living in this rural food desert.

Design solution

To address that question the student developed community kitchen activities linked with a web- portal, where recipes are gathered, and a food guide (see figure 1) which, with the help of local social workers, would contribute to the dissemination of good practices at home while shedding light on locally available produces, and ways to use them. She posited that inducing alternative healthy culinary practices and food products in the community would increase people's curiosity and eagerness to access a larger offering, pressing local grocers and producers to fulfill this new demand.



Figure 1: Prototype and testing of project *Une bouchée*

Features and qualities

The design of the community kitchen activities tries to underline a sense of discovery through pleasure, friendliness and positiveness. To achieve this, it makes use of an existing local organisation to build on current relationships and avoid paternalism. The touchpoints, using discreet and elegant graphic composition, are designed not to teach and tell what to do but to support people in embracing by themselves, and hopefully more sustainably, healthy eating habits. The whole of the proposition aims at accompanying a progressive empowerment of the population, cautiously harnessing local initiatives and existing networks of friendship.

5.2 Kick Sled as a device to empower active living despite winter's hindrance

Problem setting and mandate

This project look into the problem of Montreal's citizen bitter relationship with winter seasonal reality. Such contempt of winter jeopardizes Montrealers Nordic culture and leads to wintering behaviors. A reality that translates into less active lifestyle, which is a significant issue for public health. Indeed, sedentarity has been identified as one of the main cause of chronic diseases like obesity, cardiac problem and diabetes. The design mandate identified seek to help city dwellers to embrace an active outdoor lifestyle in winter despite the numerous hindrances that comes along going out in the cold weather.

Design solution

The proposed solution is a kick sled sharing service, organised around the same principles as well known bike sharing services (see figure 2). The necessary equipments are installed in a community network of “white back alleys” where local dwellers can use the device for fun or running errands. Montreal urban morphology of central neighborhoods is characteristically organised around back alleys³. The service allows for a free and quick access to a seasonal active transportation device and multiply the opportunities for citizens to domesticate wintry weather. By favoring such an experience the proposition tries to offer the rightful condition to increase people’s readiness to adopt an active lifestyle all year round.



Figure 2: Rendering of project *Ruelle et Luge*

Features and qualities

People’s engagement in active lifestyle is promoted here through the design of a public service which favours playful and useful experience of winter. Easefulness is achieved by a freemium-like business model that guarantees a free access to the base service. Simple, affordable infrastructures and derived products, like blankets, baskets, etc., help balance the budget of the service. The various touchpoints that compose the system, the sled, the signage, the brand, the communication, use vernacular formal language to boost the familiarity of local dwellers. All these efforts at making the system as transparent as possible are intended at empowering people’s in engaging in active living.

³ <http://www.ledevoir.com/societe/actualites-en-societe/476759/les-ruelles-de-montreal-un-reseau-au-potentiel-unique>

5.3 STIs Awareness

Problem setting and mandate

This project entitle *NoTaboo* addresses the rise of STIs among college students in Montreal. Indeed, college students face the risk of catching STIs because many still have unprotected sex, despite easy access to condoms. Researches (Whitfield et al., 2013; Buhi et al., 2009) identified the quality of information and lack of motivation to prevent STIs as sources of the problem. In design terms, this translates into a need to raise young adults awareness of STIs, making them realize the risk of their practices and the magnitude of collective unconsciousness.

Design solution

The solution developed in that regard was a public information display which exposes the practices, ideas, and prejudices about sex and STIs of students who confessed anonymously on an online survey platform (see figure 3). Presenting boldly, and publicly candid testimonies about sex and lay beliefs about STIs, was suggested as a way to fuel an ongoing discussion amongst peers, raising group awareness for issues related to sexual practices, and helping young adults to overcome shyness in front of legitimate institutional sources of information.

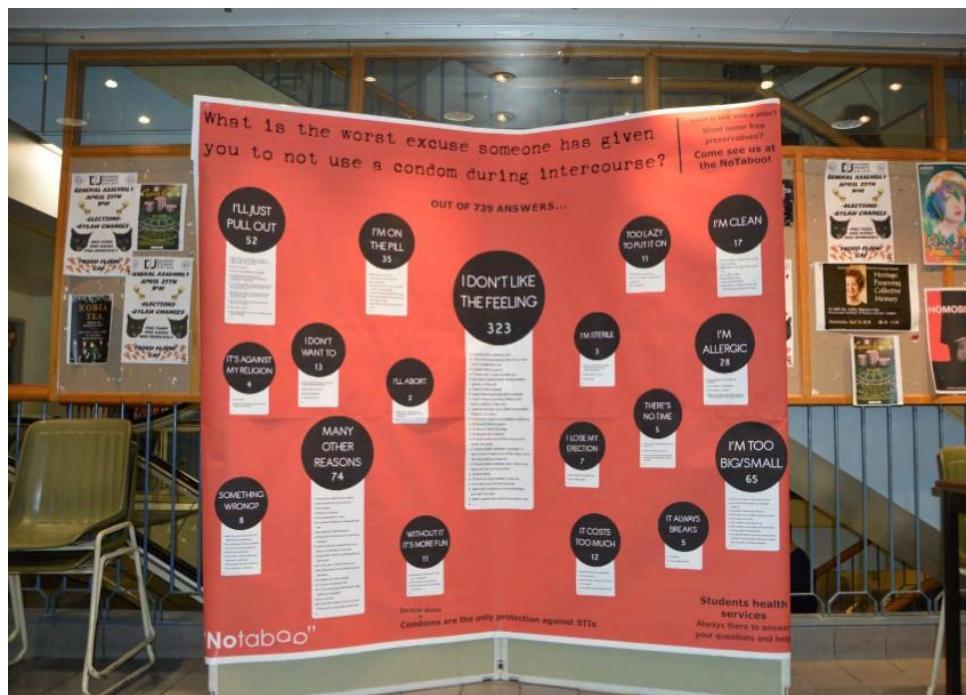


Figure 3: Prototype of the project *NoTaboo*

Features and qualities

To foster a sense of belongingness, the device tries to imitate a social network, but use a real public space to display students “status” and encourage face to face discussions. Going public strengthen the astonishment and the sense of awe necessary to bolster students reflection about their own practices and beliefs. The information shared by students are mediated by college social workers that stay available for whoever needs to untangle shaky beliefs about sexual practises and risks.

5.4 Food saver

Problem setting and mandate

People misunderstand how to correctly use refrigerators space and lacks knowledge about food conservation. Therefore, a lot of provisions ends up being wasted and the capacity to consume fresh and nutritious food decreases. The design mandate defined here consist in improving people’s understanding and know-how about personal food storage and preservation techniques.

Design solution

To overcome people’s unawareness of efficient food storage techniques, a new refrigerator layout is developed to make the proper storing of different foods easily intelligible and practicable (see Figure 4). Changing the way to store produces is used to increase people’s concerns about the values of food, inducing them to cook more and better.



Figure 4: Excerpt from video presentation

Features and qualities

The layout proposed multiplies the number of compartments displayed by refrigerators, underlining the specific storage conditions of the different food items they may harbour. In this sense, it forces a kind of knowledge building that can take place despite user's carelessness about food quality and preservation. However, this paternalism is subdued by the use of warm wood counter and curved edges. Transparency and whiteness help foster tidiness, self-awareness and dignity.

6. Discussion

Design contribution to the promotion of healthy behaviors was expressed in these projects in various manners. Yet each of them addressed a problem associated with the social determinants of health (Marmot & Wilkinson, 1999). As is usually the case with human-centred design approaches (Hanington, 2003), the projects stresses that experiential qualities of devices, emerging of what we called touchpoints, are essential triggers of new practices. Although insufficient in themselves, these qualities, like pleasure, easiness or awe, bring an essential contribution to the adoption of habits sought after by health policies. The reason we believe that design can bring about innovative solutions is rooted in this concern for users' experience. Yet, such qualities of experiences, subjective as they are and based on an æsthetic appreciation of the world, usually fail to make their ways in the general economy that

arbitrates public health initiatives (Proulx, 2015).

We consider that the efforts our apprentice designers invested in “giving shape” to these devices, gaining insight about a problematic situation, pondering divergent answers to the situation, conjecturing a preferred user-scenario and refining it through iterative prototype testings with lay users, do offer a potentially critical perspective public health policies. Indeed, the design phase of any health promotion initiatives, may it be a service, a technical device, a communication campaign, should never be taken for granted. The design approach as a whole can yield valuable information about the issues at stake and the outcomes of a program or a service. The design process should be considered instrumental in the success or failure of any policy. Therefore, an understanding of this process, filled with contingencies and constraints, and framed by the subjectivity of stakeholders, should allow for a critical analysis of the field of public health measure.

7. Conclusion

This paper examined and discussed the potential benefit of design for public health, drawn by the recent expansion of the scope of design into social issues. If nowadays an appeal to design may sound obvious to enhance the quality of health facilities, delivery and technology development, it appears somewhat more difficult to establish the legitimacy of the approach for public health problems. We posit that detailing the process by which it becomes possible to elicitate the experiential qualities of a policy or of a public health measure, can provide a sound theoretical base contributing to the acknowledgement of a design approach of public health. Advocating for a thorough analyses of the stuff of user-experience raises some interesting promises that allow to envision worthy research leads to open a critical perspective for the study and practice of public health.

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Before joining the Ohio State's Department of Design, Dr. Proulx was a lecturer and researcher at the Université de Montréal for 12 years. His research activities focus on social design and on designing for vulnerable people.

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Philippe Gauthier is associate professor at Université de Montréal where he leads the Design et société research group. He was first trained as an industrial designer before undertaking his doctoral dissertation in sociology at the EHESS in Paris, France. He spent several years working as an independent research agent, examining the development and reception of normative devices — safety measures, public education programs, information — through a moral perspective. He now studies the role of experiential knowledge in the development of policies and public services.

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Yaprak is a designer and researcher who uses ethnographic approaches in several areas as ecology, citizenship, urbanity and health. Through her fieldworks focused on movements and materials, she studies the link between aesthetics and politics. After her studies in plastic arts, product and transport design, she worked in Turkey, France and Canada in art and design industry. She is now completing a Ph.D. dissertation in design at Université de Montréal and holds a teaching and research position at Université de Nîmes (France).