Politics at the interface: A Foucauldian power analysis

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ABSTRACT
At the birth of participatory design, there was a strong political consciousness surrounding the design of new technology, the design process in particular, establishing a rich set of methods and tools for user-centered design. Today, the term design has extended its scope of concern beyond the process of design and into how users interact with the designed product on a day-to-day basis.

This paper is an attempt to call to attention the need for a new set of methods, attitudes and approaches, along with the existing, to discuss, analyze and reflect upon the politics at the interface. By presenting a critical analysis of two design cases, we elicit the importance of such an agenda and the implications for design in doing so. We use the Foucauldian notion of power to analyze the power relationships in these two cases and to articulate the politics at the interface. We conclude by emphasizing the need for furthering this agenda and outlining future work.

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Politics, interface design, power, gender, transgender, Foucault, critical analysis.

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INTRODUCTION
Design is, at its core, political [12]. Be it improving the quality of the design process itself or bolstering a specific political agenda through the designed product, design is inherently and inescapably political in nature. The birth of the Scandinavian participatory design tradition was propelled by a strong political motivation to involve users as active stakeholders in the design process. This earmarked the commitment of design fields to view design as centered to user-involved by viewing the users as ‘human actors’ instead of just ‘human factors’. It is fair to state that there is a significant awareness and literature about the need and role of users in the process of design itself.

The significant shift in focus between the second and third waves of HCI brings to light a multitude of issues such as context, culture, experience, etc. [5]. The term design has extended its scope of concern beyond the process of design (and development) and into how users interact with the designed product on a daily basis. This then implicates and necessitates that we extend the existing political consciousness beyond the design process itself and into the interaction between the users and the products and the emergent relationships between the two. This work is an addition to the existing body of works that put forward the agenda of extending the political sensibility beyond the process of design and into the daily interactions and the emergent relationships between the user and the interface.

We present a critical analysis of two design cases to elicit the importance of such an agenda and the implications for design in doing so. The focus of this analysis is narrowed down to one important political variable in particular, namely power. We use the Foucauldian notion of power, explained in the next section, to analyze the power relationships in these cases and present our observations and insights.

FOUCAULDIAN POWER
Michel Foucault, a philosopher and historian, was a key figure in the critical discourse of power relations. The word power is commonly viewed as a possession, something that someone possesses to control/oppress/constrain others. Foucault urges us to move “beyond this view of power as repression of the powerless by the powerful to an examination of the way that power operates within everyday relations between people and institutions” [11]. Instead of focusing on where power comes from or who owns it, Foucault turns us to analyze local forms of power and the way they are constantly negotiated by individuals or other agencies in a system. He argues that power must be viewed as “something which circulates, or as something which only functions in the form of a chain... Individuals are the vehicles of power, not its points of application” [8].

Based on Foucault’s works, his notion of power can be said to be characteristic of the following. These five characteristics are by no means comprehensive or
exhaustive of his oeuvre but are sufficient distillations for the purposes of this work.

- Power: Power should be viewed as - a strategy and not as a possession; a verb not a noun; something that needs to be constantly performed and not merely attained.

- Operation of power: Power circulates and operates in the form of a network permeating through the various levels of the system rather than being just located in an institution or possessed by an individual.

- Enactment of power: Power is enacted and actively contested among various agents in a system rather than just being applied to someone or something.

- Power and resistance: “Where there is power, there is resistance” [7]. In other words, the presence of multiple points of resistance is a necessary condition for power to exist and such resistance should not be reduced to an anomaly or to a single source of rebellion.

- Power and knowledge: Foucault coins a new compound term called ‘power/knowledge’ which he characterizes as the conjunction of power relations and knowledge production. “It is not possible for power to be exercised without knowledge, it is impossible for knowledge not to engender power” he states in [8]. We would like to call to attention two important implications in this formulation of power/knowledge. First, knowledge is an integral part of power relations. Power/knowledge determines the forms and possible domains of knowledge” [9]. Second, by producing knowledge, irrespective of their stance, one is making a claim for power.

**CASE STUDIES**

In this section, we present two case studies, analyze the power relations through the critical lens of Foucauldian power analysis and discuss our observations to elicit the politics that happen at the interface.

**Gender in Facebook**

Here we present a critical artifact analysis of Facebook, a social networking website. Facebook requires its users to enter ‘Basic Information’ about themselves while creating their profile, one among them being their sex. Users are provided with only two options for selecting a value for this field – male and female. Users who do not identify themselves with either of these values, for a multitude of reasons, do not have any other option but to not select any value for this field thereby reporting their sex as ‘Unknown’. Stepping aside the fact that Facebook uses gender and sex interchangeably, the former being sociocultural construct while the latter being a physiological construct, let us analyze how such users negotiate their power relationship with the system.

User profiles are “poor as literal representations of users, but they are rich as performed expressions of how users perceive themselves and/or desire to be perceived” [3]. The profile then is not just a webpage with information about the user but is an active construction of the self in the digital world [13]. The main objective of the profile is to help the users to faithfully construct and communicate this perceived account of their self. Let us consider a specific example where the user identifies herself as a transgendered female. The system does not provide an option for her to express her gender. Viewing the scenario through Foucauldian power analysis sheds light on how power is negotiated in this scenario and brings to surface the following observations.

- Facebook, like any other designed system, has inbuilt political beliefs. As obvious as this insight may sound, it is important to note that the designed system is never neutral or void of beliefs, values and prejudices. We would like to clarify that we are in no way suggesting that a neutral design is necessary or even possible [6]. Also, the system is not a passive ground upon which the interactions happen but rather is an active agent that is involved in the constant negotiation of power. It actively prohibits or promotes, vocalizes or silences, makes visible or hides user actions and motives – making it an active agent with a specific inbuilt political stance.

- Let us consider a scenario where the user actively resists identifying herself with the categories provided by the system. The user then is not a passive agent who is oppressed by the system but rather an active and volitional agent of resistance. In other words, the user, even though she may not have equal rights, has political agency in the system. Through this very act of resistance she is making her claim to power.

- The user may choose to convey her gender through the ‘Bio’ section in her profile. For example, one user writes “I am a transgendered woman” in her ‘Bio’ while choosing no value for her ‘Sex’. Such interactions help the user to actively contest and negotiate her power relationships inside the system. It is important to note that these interactions are not the means to gain or exercise power but rather it is the very interaction itself which is an act of power. By making an attempt to construct an identity that the system actively prohibits, she is negotiating her power relationship with the system through her interactions.

**Advanced heating control in the home**

As a part of an empirical study, we evaluated a product offering remote indoor heating control and interviewed three different families to investigate how they use the system and what kind of routines they had established over time. The system consisted of both central and local controllers making it possible to program complex features and functions. One such function is the weekly heating schedule which allows the user to centrally program the
system to control the temperature of all the rooms for the whole week.

Let us analyze a particular scenario where we interviewed a husband and wife. The wife mentioned that she interacted with the system mostly through the local controller in the kitchen. Initially, she explained how she adjusts the temperature in the kitchen using the local controller since she finds that it gets cold there often. At a later stage during the interview, she was upset when she learnt that her husband had pre-programmed the temperature for the kitchen through the weekly heating schedule. She said that she was unaware of the ‘hidden control’ and told that it ‘made no sense’. She preferred to control the temperature locally in the kitchen than through the central controlling mechanism. Analyzing this scenario through Foucault’s conception of power, we present the following observations.

- Even though it appears as if the user with access to the central controller has more power, upon closer analysis we can observe that power is continuously negotiated between the central and local controllers. Despite the fact that the central controller resets the temperature preferences in the kitchen at regular intervals, the user in the kitchen actively and constantly negotiates her power.

- On the outset, it appears as if the husband ‘hid’ the central controller from the wife and the designed system is a neutral ground which treats all its users the same. Let us analyze this through the quality of “self-disclosure” as discussed in [4]. Self-disclosure “refers to the extent to which the software renders visible the ways in which it effects us as subjects” [4]. In this particular case, the display at the local controller does not indicate the presence of a central controller. Hence the system makes it impossible for the user in the kitchen to know why the temperature keeps resetting itself. When this knowledge is made available by the system to all its users, the user in the kitchen is not seen any more as someone who doesn’t understand the system and as being just oppressed. This aligns with the Foucauldian notion that knowledge engenders power and vice versa. It is important to note when we apply this formulation of power/knowledge, the husband is not seen as the oppressor. Rather it is the system through its design, restricts this particular knowledge, and by implication power, from certain users. The Foucauldian notion of power/knowledge is crucial since it helps us attribute this scenario as a design flaw rather than a bad behavior on the part of the user.

**IMPLICATIONS FOR DESIGN**

In the previous section, we analyzed two specific design scenarios through the critical lens of Foucauldian power. Based on the observations presented in the previous section, we present the following insights for interaction design.

- Design: The designed system is neither neutral nor a passive background upon which the interaction happens. It has been well established that biases are always inbuilt into the designed systems [6, 10]. We would like to build upon this and propose that the designed system is not a passive sandbox which just permits or restricts something but is rather an active site that enables the various stakeholders to negotiate power and have a conversation. It is the very site of contestation with inbuilt political stances, beliefs, and prejudices upon which power is constantly performed, contested and negotiated.

- Designer: Foucauldian power analytics frames the designer as another active stakeholder who takes part in the negotiation of power relations. Such a view of the designer has two major implications. First, the political stances, beliefs and prejudices of the designers inescapably get woven into the designed system. Such an acknowledgement helps us to gain critical distance between the designer and the designed system. Second, the designer is viewed as another stakeholder in the power mesh and not as a teleological creator of the system. This implication is crucial because it does not pin the onus of responsibility for the designed system solely on the designer and acknowledges the influence of other stakeholders as active and volitional agents.

- Interaction: In the perspective of politics at the interface, interaction between the users and the system is not just a means to achieve a specific result. Neither is it wholly dictated by the internal system constraints. Rather interaction is the very act of contestation and the performance of a Foucauldian power relation. Such a view of interactions should not be mistaken as a denial of the constraints present in the system but should be viewed as a critical assessment of the effects of such constraints. This then would help to view the mundane activities of interactions as an active negotiation of power rather than as just another step in a task sequence or unexpected user behaviors.
Users: In a Foucauldian power analysis, users are active agents rather than passive external parts of a designed system. This shift in attitude helps us to re-conceptualize not only the user but also the role that the user plays in power relations – whether they are simply subjected to the constraints of the designed system or whether they actively play a role through their actions and relations with others and with the designed system. The former casts them as muted, passive victims without volition or agency while the latter helps us to view the users as active political agents. Viewing the users not just as oppressed but as political agents who constantly negotiate for power, helps us to gain a nuanced perspective which might otherwise be lost.

User behavior: While a traditional view of power as just constraining and repressing would have discarded emergent behaviors as anomalous and errant, a Foucauldian notion of power helps us to account for emergent relationships and behavior as a constant performance and contestation of power relations in the system amongst various agents. This also helps us to account for the day-to-day actions of the users immersed in local contexts and not discard them as mundane and insignificant.

CONCLUSION

As technology becomes woven into almost all aspects of our lives, domestic and work alike, it is crucial that we extend the existing political consciousness beyond the process of design itself. As the above case studies show, a critical analysis of the day-to-day interactions helps uncover nuanced relationships that are otherwise unnoticed. This paper highlights the need for a new set of methods, attitudes and approaches, along with the existing, to discuss, analyze and reflect upon the politics at the interface. By doing so, we invite future works for an open discussion that could contribute critically to the discourse of politics at the interface.

The use of Foucauldian power analysis in this paper was to show why such an agenda is necessary and what it can contribute to design. It is used to showcase the insights such a critical method might help us unearth that may remain oblivious otherwise. Foucauldian power analysis is specifically well suited to study local forms of power that is constantly negotiated through day-to-day interactions immersed in local contexts. Let us be clear that we are in no way suggesting that Foucauldian power analysis is the only way or the best way to garner such insights. Rather, the point we want to drive home is that we need a new set of methods, approaches and attitudes to discuss and analyze politics that happen at the interface. We intend to develop robust critical frameworks in the future that would help advance the agenda of extending the political consciousness to daily interactions and help design systems more thoughtfully and responsibly.

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