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Intervening in Habits and Homophily: Make a Difference!

**An Interview with Wendy Hui Kyong Chun
by Martina Leeker**

In this interview, Wendy Hui Kyong Chun comments on different aspects of the constitution of digital cultures. Habits are viewed as infrastructures, and homophily (the principle that like breeds like), which currently grounds network analysis and fosters segregation, is called into question. Given these interventions, methods for engaging differences and queering homophily are highlighted in order to redefine comfort and discomfort.

Infrastructure as Habits

Martina Leeker: For our volume on interventions in digital cultures, I would like to speak with you about their technological and other conditions that we need to understand in order to intervene in them. Is there one critical point in digital cultures where it would be best to intervene? Where would it be best to start?

Wendy Hui Kyong Chun: I think you have to intervene at all levels: from hardware, protocols, software, and user interactions to how these are embedded in various economic and social systems and imaginaries. We need to constantly ask: Why are things the way they are? Since there is no one critical point, it is important to keep prodding at all levels. Also, we need to create broad coalitions because people have different forms of expertise: some work intimately with algorithms and machine learning and thus can help us rethink those algorithms (for example someone like Cathy O’Neil and her *Weapons of Math Destruction* (2016)); others focus on user interactions and social media. Again, what’s crucial is that there are many different places to intervene and no one person can do everything.

ML: Absolutely, but we also have to realize that infrastructures are a big topic today, as technological fundament of digital cultures, constituted as networks, driven by algorithms. The question is: How do we intervene in them? To find an answer we need, of course, an analysis of their constitution, first of all.

WC: For me, the question of infrastructure is not simply technological—or human. For instance, my last book (Chun 2016) looked at habit as infrastructure. Habit, after all, is “second nature”: it is something that is built rather than given at birth—it is not instinct. At the same time, it is nonconscious: it is in muscle memory and so “below”

consciousness. Like infrastructure, it lies beneath. Habit also unfolds through constant repetition. Why is this important? Because sometimes work in the growing and important field of infrastructure studies tends to focus on technology, at the cost of human interaction, as though infrastructures were only technical.

ML: How do habits function? What is their most significant effect?

WC: Habits link us to the past, to old, seemingly obsolete technologies that live on in our interactions. Friends or the practice of “friending” has lived on past the demise of Friendster as a social networking site. Edsger Dijkstra, an early pioneer in structural programming, cautioned that machines and software foster certain habits of thinking, which fundamentally affect a programmer’s mind. Habits mark openings in our bodies—we learn habits from others and in response to our environment. Most provocatively, habits are scars of others that live on in our repeated actions. Habit and infrastructures both support actions—and they also remain in intriguing ways. Habit provides a necessary counterpoint to rhetoric about disruption and new media as being viral. The fact that crises happen is not really that surprising. What is surprising and interesting is what remains after a disruption. The question is: What does a disruption make habitual?

ML: It seems that companies like Amazon try to make use of habits, for example, in the sense that they try to predict them via algorithms. So, another aspect comes up in this context, which is prediction. What do you think about the predictive potential of algorithms?

WC: They are fundamentally predictive; however, there is no way of absolutely verifying the results of these recommendation systems. Consider the Netflix prize, when Netflix offered a huge part of its database and a cash reward to any group that could improve its recommendation system by 10%. It awarded the prize, however, to the group that could best

predict the past, that is, a part of its database that was initially hidden. This is because it is really hard to know what role any recommendation plays: How do you know a user wouldn't have bought a book regardless of the recommendation? How do you know a user wouldn't have bought any item that was recommended?

Homophily: Love of the Same in Networks

ML: I would like to bring in your work on homophily as a crucial model that has to be mentioned in the context of conceptualizing interventions. Could you explain the technological and conceptual sides of homophily?

WC: Well, you cannot disentangle the two. Homophily began as a sociological concept, which then became embedded within network algorithms as the easiest way to understand how connections form and remain. The term homophily came from two sociologists, Lazarsfeld and Merton (1954), who were trying to understand different friendship formations. In their 1954 article, "Friendship As Social Process: A Substantive and Methodological Analysis," they coined both the terms "homophily" and "heterophily" (inspired by friendship categorizations of the allegedly "savage Trobrianders whose native idiom at least distinguishes friendships within one's in-group from friendships outside this social circle"). In it, they analyzed friendship patterns within two towns: "Crafttown, a project of some seven hundred families in New Jersey, and Hilltown, a bi-racial, low-rent project of about eight hundred families in western Pennsylvania" (Lazarsfeld and Merton 1954, 18–88, 23, 21). Crucially, they did not assume homophily as a grounding principle, nor did they find homophily to be "naturally" present. Rather, documenting both homophily and heterophily, they asked: "What are the dynamic processes through which the similarity or opposition of values shape the formation, maintenance, and

disruption of close friendships?” (Lazarsfeld and Merton 1954, 28). What is interesting is that—although this article is cited all the time—the breadth of its analysis, conclusions, and case studies are ignored. Network science now largely assumes that homophily, which is love of the same, is natural—that similarity automatically breeds connections. Thus, recommendation systems place you in segregated neighborhoods based on your intense likes and dislikes. As it’s become a grounding principle, the world has become more and more homophilous. It does not just describe the world—it also now prescribes and shapes it.

ML: And then you go on to say that homophily is a way of creating segregation.

WC: Homophily *is* segregation. It assumes that love is love of the same, that you would naturally love to be around people like yourself, so therefore, segregation is natural. At the same time, homophily—because it emphasizes the actions of individual agents—erases the importance of institutions, economics, and legal structures (hence my emphasis on habit as infrastructure and the ways in which habits buttress/engage/are part of institutions, economics, etc.).

ML: What about heterosexuality? Can it be seen as homophily because it is a norm?

WC: Heterosexuality is actually a contradictory case: technically it’s called “reverse homophily.” Since many systems assume strong gender homophily, heterosexuality is an anomaly.

ML: How did you come up with the idea of working on homophily?

WC: Through an extensive literature search on networks, by reading textbooks.

ML: There are so many concepts of the “one and only correct theory” on digital cultures. Depending on the insights, they develop completely different concepts on interventions. How

do you find the evidence of homophily? Homophily seems to be a point in which technology, the conceptual, and real politics come together.

WC: Most generally, I start with the fundamental concepts. I try to think as basically as possible in all disciplines and ask: Why is this concept important? What does it assume or mean? A lot of this work came from an earlier investigation into the predominance of networks across disciplines. I asked myself: What does a network mean across disciplines? What is a node or an edge?

ML: Could we still compare this approach to Friedrich Kittler's media-theoretical and media-epistemological tradition, the idea that we have to go back to technology in order to find the crucial points? Is homophily today's techno-culture?

WC: Homophily is basic on a different level. Homophily as a concept does not work at the level of electronics: if anything, heterophily drives electromagnetism. I'm also a little wary of Kittler's arguments based on his understanding of software.

Intervening in Homophily

ML: This concept of homophily, of loving the same, has been applied to network studies and their technology, configuring how networks and algorithms work?

WC: Clustered, how networks are clustered.

ML: Would it make sense for intervening in homophily to go to other logic concepts such as Gotthard Günther's trans-classical logic, or Heinz von Foerster's concepts of non-trivial machines?

WC: I think you need to change it on multiple levels. But I do think that reworking network algorithms and recommendation systems is really important, because we live in a world where the information we get is so selected—and it's selected

based not only on our history, but people considered to be “like us.” It’s key that we rethink homophily both online and offline. I think we need, again, to have many critical points of intervention.

ML: In your texts, you mention the work of D. Fox Harrell¹ as an example of intervening in homophily. Could you comment on his approach to interventions?

WC: Actually, I view Fox as intervening into network science more generally. Fox builds systems and creative artificial intelligences (AIs). He creates different experiences that force us to rethink social biases. At the same time, he refuses to make race, gender, class, etc. simply static and immutable categories. Part of his work confronts you with discrimination and works from theories from Erving Goffman (1956) regarding stigma.

ML: So, it’s a way of implementing technologically but also on the conceptual level, differences, in order to make us think with differences, or to see things differently?

WC: Or to imagine dialog differently. His work comes from the tradition of electronic literature. So, his question is: Can AI be like great literature? Can it be like Ralph Ellison’s *Invisible Man* (1952)?² Can reading it change the world? Vi Hart and Nicky Case’s *Parable of the Polygons*—a really excellent reworking of Schelling’s segregation model—is also an excellent example.

1 For the work of D. Fox Harrell (2013), see: <http://www.foxharrell.com/>. “Fox Harrell is a researcher exploring the relationship between imaginative cognition and computation and his research involves developing new forms of computational narrative, gaming, social media, and related digital media based in computer science, cognitive science, and digital media arts. He aims to push the boundaries of how computers can be used for creative expression and social empowerment.”

2 A novel about a black man rendered invisible by race struggle and its consequence: a precarious constitution of identity.

Methods for Differences

ML: What kind of interventions do you see for intervening in homophily by making differences? You speak about performance?

WC: Yes, I speak about performance partly in response to those who argue that because our actions are captured and are given more weight than our words, we can no longer give an account of ourselves. This may be true, but our actions aren't simply captured—they are shaped into what Phil Agre (1994) has called grammars of action. Capture systems, he argues, are based on a metaphor of human activity as a kind of language. So, they store, shape, and rearticulate our actions: they form them into grammars of how things should be done. The point is: even when we're simply doing things, we're still speaking. We thus need to rearticulate certain grammars and try to create different ones.

ML: Can we link this to Judith Butler's concept of the performativity of, for example, gender, or race (Butler 1990)? Her approach to intervening comes from Derrida's concept of iteration. It is about a kind of transforming of inscriptions by performing them. Could performing be like a silver bullet for diverse kinds of levels (technologically, by theater pieces, via artistic installations) in order to bring an ethic of difference into the world? Or, do we have to take into account problematic points of performance?

WC: At a base level, we can say that we are always performing. Even when we are being captured in seemingly spontaneous ways. Think, for instance, of how Donald Trump has become "authentic" and how he used reality TV to shape this authenticity. Reality TV, of course, is highly scripted and inauthentic: so, what is considered to be authentic now is completely scripted and performed. Thus, one argument is we're performing at all times. Judith Butler, amongst others,

of course, has argued that identities are always performative and there is thus the possibility that things might go astray. But there are also of course many other arguments within performance studies, as well as Erving Goffman's work (1956) on the social as itself a performance. There is a long tradition of thinking through those terms.

ML: Would you recommend a movement of transdisciplinary concerted action by people from different fields making something like a net all over the world with rethinking and re-performing? If so, how can scholars from the humanities, or artists, work together with computer scientists and people from network theory in order to change homophily?

WC: If network science looks the way it does, it is in part because of the sociological theories it favors—that is, theories that are relatively easier to model. It is already fundamentally interdisciplinary. It is a question of getting different types of theory into network science. But that clearly is not enough—we need interventions at all levels. For example, to combat abusive speech online, we need many different forms of expertise: from those natural language processing folk to ethnic studies. For interdisciplinary work to succeed, we need to start with a topic that everyone cares about and realizes is very difficult to solve using one's own methodology alone.

Queering and Discomfort

ML: In artistic interventions, we see “queering” as a method of introducing difference and attacking homophily today. Thus, looking at the history of queer studies and the hype about queering, could there be a problem? If we are multiple and should always be different, could these concepts unwillingly support the politics and economy of, for example, gene technology or neoliberal governmentality? Aren't critique and intervention always eaten by the systems they live in?

84 WC: It is—there is no position that is not compromised and this is why queer theory is so important. Queer theory itself has also changed over the years. To just assume it is simply about drag is not correct—Sara Ahmed’s³ (2010) more recent work, for instance, about discomfort is really interesting, as well as Kara Keeling’s work on queer OS (operating systems) (2014). Queer is best understood as a verb, a certain mode of operation. It can never simply be one thing. It also cannot be the solution to everything. There needs to be different ways of engaging things. Perhaps one way to queer homophily is to actually make it heterosexual.

ML: This means also going against the normalization of, for example, the heterosexual concept of family in homosexual relationships?

WC: I think the fact that heterosexuality both challenges homophily and reveals that homophily is hardly queer. Homosexuality and queerness aren’t the same thing. But to be clear, homophily as love of the same does not even come close to doing justice to homosexuality.

ML: It seems that we have to be very precise and very differentiated in thinking about differences and queering. Perhaps some training in permanent discomfort could be a promising way?

WC: Homophily is constantly discussed as being comfortable, but it is hardly comfortable. If you’re around people who are always like yourself, it is horrible. Think of something like segregated groups—these are filled with angry people. So, part of dealing with this is to refuse this offer of a comfort that is no comfort and to realize that what is allegedly comfortable is anything but comfortable.

3 See also Sara Ahmed’s Blog “feministkilljoys,” available at <https://feministkilljoys.com/>.

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