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DIRECT-TO-CONSUMER DNA PLATFORMS & DIGITAL DISPLAYS OF FAMILY

Giselle Newton

The Centre for Digital Cultures and Societies, University of Queensland

Background

The family genealogy industry has seen exponential growth in recent years, in large part due to the rise of direct-to-consumer DNA testing. Worldwide, millions of people have submitted saliva samples to be digitised in exchange for DNA profiles, ethnicity estimates and DNA matches. To some extent, ancestry-oriented DNA platforms function like other social media networks, connecting users in intimate publics, yet they differ in the way they order users by centimorgans rather than other social relationships such as friendship. Further, DNA testing sits within a spectrum of technologies for tracking and monitoring the body however, DNA data is more identifying and arguably more sensitive than other forms of intimate data. As such, direct-to-consumer DNA testing raises novel and complex questions related to how this technology might (re)shape individuals' sense of self and connectedness to family.

In this presentation, I draw on accounts from an ongoing study with Australians interested in genealogy, or affected by adoption or donor conception. I situate this work among scholarship by digital researchers who have drawn on the sociological concept of 'family display' (Finch, 2007), which highlights how the ways we display family (deliberately or inadvertently) constitutes a key family practice. Previous work on digital displays of family has considered: family photography on Instagram (Barnwell et al. 2021), mobile photography and Skype use in transnational families (Share et al. 2017; Cabalquinto, 2019), and family accounts on smart home devices (Goulden, 2019). In a similar way, (genetic) families become visible and legible through DNA testing platforms. I bring this scholarship on digital displays into dialogue with work on geneticization of the self (Fishman & McGowan, 2014) and bio-digital identity (Peters & Gorissen, 2023), to illuminate how the digitization of DNA shapes our familial and personal lives in powerful and novel ways.

Methods

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Semi-structured interviews were conducted with Australian individuals who had used DNA testing platforms to access information about their family (n=23). Participants were recruited via community organisations, Facebook groups and via word of mouth. Data were analysed using reflexive thematic analysis (Braun & Clarke, 2021), and two themes were derived from my analysis, outlined below.

DNA displays of family: How users are connected and ordered on the DNA platform

The first theme derived from my analysis related to how participants used DNA platforms to make visible or display their genetic familial networks. For example, some participants were hoping to match with a specific family member (e.g. a biological parent) or uncover information about their cultural identity. For instance:

I am mapping the entire village [my family came from] and I thought, well, let me see if I can do it properly. (Zoya, 62, female, genealogy enthusiast)

Accounts revealed how participants sought to construct desirable family histories. For example, many participants described feeling disappointed about their ethnicity estimates, that DNA data did not reveal more 'exotic' cultural ties or salacious histories, like convicts.

Participants also acknowledged the limitations of such networks constructed from DNA, for example, in that they did not capture the oral narratives or account for their social family members:

I talk to him all the time, but they're not blood related. And so I can't put them on my tree even though I call him my cousin, even though they're connected. (Danielle, 47, female, genealogy enthusiast & adopted mother)

Further, for some participants solving their family mysteries or identifying a biological parent or sibling required more members to join the DNA platform giving rise to periods of waiting and longing:

The waiting is - you always feel on edge. You're hoping every time you log in, or that she logs in, that she's actually going to tell me that there's somebody who's closer. (Zoya, 62, female, genealogy enthusiast)

As such, maximising the desired and imagined affordances of the centralised DNA platform required a critical mass. Elsewhere, the future of their DNA profiles and the platform was also considered by participants, and some viewed their genealogical work as a way of contributing to their family and leaving a legacy:

I don't have children, so I thought it was my way of keeping the family tree alive too. (Danielle, 47, female, genealogy enthusiast & adopted mother)

Yet, this also meant that future generations would also have to manage unexpected matches and DNA surprises, and individuals described how this placed a burden on their children and grandchildren.

Defining the bio-digital self: How identity is shaped by DNA data

The second theme focused on how individuals were able to cultivate their bio-digital identities through engaging with DNA testing. Many participants viewed DNA data as representations of their 'true' selves:

This is the truth and you know, you can't deny DNA, DNA's in your makeup.
(Brad, 65, male, genealogy enthusiast)

Participants often described how it was important that they added accurate and detailed information and photos to, not only to their DNA profile, but also to other social media profiles so that they were 'findable' or 'discoverable' if/when family members matched with them and began sleuthing. In this way, participants sought to portray a 'best self' online. Some participants discussed how they needed their profile to show that they were authentic and human (rather than scammer or bot), for example, in the case that the DNA testing would reveal an unexpected and/or multiple (donor) sibling relationship.

They think I'm a bot or a scammer, so I have to try and yeah, try to humanise myself as much as possible, like have a profile photo and put my phone number.
(Caroline, 33, female, donor-conceived)

Yet while they sought to be desirable and unique, participants often joked about how their DNA data was neither exceptional nor useful or incriminating in any way, for example:

If somebody's cloned me somewhere along the line, OK, well, and good. Make it a good one (laughs). (Julie, 73, female, genealogy enthusiast)

Many participants considered DNA testing practices, genealogy and family history more broadly as a personal hobby, important to their identity and aligned with their personality. For instance, one participant located genealogical practices historically as a pastime dominated by women, describing how she viewed DNA testing as part of 'her-story':

[DNA testing] has really strengthened my conviction as a feminist... It's not 'his-story'. It's 'her-story' to me, because social history is the story of households and families and social obligation. (Emily, 61, female, genealogy enthusiast)

Preliminary conclusion and implications

This is the first empirical study to capture the Australian direct-to-consumer DNA users' experiences, combining accounts from genealogy enthusiasts with accounts from those affected by adoption and donor conception who may feel compelled to test due to limited access to information. This work firstly contributes to understanding digital displays of family, specifically how DNA platforms shape understandings and practices of family. Secondly, this work provides insights into how DNA data (like other biometric data) shape individual identities in complex ways.

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