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FINANCE APPS AND THE DATAFICATION OF CHILDREN'S ECONOMIC LIVES

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Introduction

Children's finances are increasingly datafied through the emergence and development of applications for managing chores, saving, and spending. These finance apps incorporate features for both parents and children, enabling the setting and tracking of chores, the payment of allowances or pocket money, as well as supporting and managing children's saving and spending habits. The paper undertakes an analysis of features across child finance apps, exploring their role in the datafication of children's finances and economic participation. We identify and argue that the data produced by child finance apps simultaneously enables increased agency *and* control of children's financial lives by initiating a lifelong digital trace.

Background: Children's Finance and Digital Platform Research

Child finance apps are digital platforms that enable the mediation and monitoring of children's chores, allowances, saving and spending. In doing so, they offer possibilities for reshaping children's household labour, financial literacy, consumer socialisation, and economic agency. Apps for managing children's finances can be located within broader research on the intersection of technology and finance, or FinTech, characterised by the transformation of economic transactions into information, detailed consumer data records, and the development platform economies (Dieter and Tkacz, 2020; Langley and Leyshon, 2021; O'Dwyer, 2023).

Child finance apps operate at the intersection of children's financial socialisation and digital platform studies. Child finance literature has focused on questions associated with children's financial literacy, socialisation, and wellbeing. This literature has noted the importance of child chore payments or allowances as compensation for household

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labour (Sato, 2011; Zelizer, 2002), and for enabling children as economic agents (ChildWise, 2022; Marshall, 2010; Levison, 2000), operating as part of a broader commercialisation of childhood (Schor, 2014). Yet, this research has not addressed the implications of child finance apps and datafication on children's economic lives.

Digital data and platform studies research has considered the datafication of childhood through digital tracking of children's biometric, social, or behavioural data, in which their everyday lives are tracked and operationalised through aggregation and analytics to create forms of cultural, political, and economic value for families, governments, and industry (Lupton and Williamson, 2017; Mascheroni, 2020; Mascheroni and Holloway, 2019; Mascheroni and Siibak, 2021). Within family contexts, child datafication is often described as a kind of intimate or careful surveillance (Leaver, 2017; Richardson et al. 2017), in which child data tracking apps are adopted as a mode of providing well-intentioned care and good parenting (Mavoa et al. 2023; Page Jeffrey, 2021; Sandvik, 2020; Suuk and Siibak, 2021). Conversely, such datafication highlights how digital surveillance is increasingly normalised as a part of childhood (Albrechtslund and Lauritsen, 2013; Marciano, 2022).

This paper offers a novel contribution to these fields, applying the concept of datafication to children's financial lives through a feature analysis of children's finance apps.

Researching Finance App Features

We investigate the operational features of finance apps using a feature analysis approach (Hasinoff and Bivens, 2021), which is based in and draws from interface, app, and digital platform studies research (Burgess, 2021; Dieter et al., 2019; Dieter and Tkacz, 2020; Poell et al., 2019). Feature analysis builds on the close attention other scholars pay to app interfaces and the ways culture is embedded in app design by specifically concentrating on app features and applying an analysis of the mechanisms and conditions of shared or common features that operate across a category of app types (Hassinof and Bivens, 2021), as well as the ways they construct meaning and norms by reflecting "cultural norms, assumptions, and ideologies" (Hasinoff and Bivens, 2021: 90).

Our feature analysis of children's finance apps offers a preliminary summary of how digital platforms mediate the financial status, capacities, and relationships of children. Using iterative keyword searches in the Apple Appstore, we identified 12 apps for inclusion, selecting English language apps that were marketed as apps for managing various aspects of children's chores, saving, and/or spending.¹

Findings and Discussion

¹ Note, the set of apps analysed is not exhaustive, with new apps continuing to emerge, whilst others not included here are tied to various geographic regions or languages, or more directly to banking institutions.

Our app feature analysis initially documented the political economy and commercial operating model of these 12 child finance apps by detailing their cost, country of development and availability, financial affiliation, connected payment systems, and target user groups (see Table 1).

App Name	Cost	Country	Financial Affiliation	Payment System	Target Users
<i>Spriggy</i>	\$60 p/y (AUD)	Australia	Indue Ltd (non-bank)	Prepaid, Visa or Mastercard	Family, Kids 6-17
<i>Kit</i>	No fees	Australia	Commonwealth Bank of Australia	Prepaid Visa card	Family, Kids 4-17
<i>Greenlight</i>	Tiered, \$4.99 - \$14.98 p/m (US)	USA	Greenlight financial (non-bank)	Prepaid Mastercard	Family, Kids 8-18
<i>Gimi</i>	Freemium, Pro €2.99 p/m	Sweden	Gimi (non-bank)	Prepaid Mastercard	Family, Kids age 6+
<i>FamZoo</i>	Subscription \$5.99 p/m (US)	USA	FamZoo (non-bank)	Prepaid Mastercard	Family, all ages
<i>Go Henry</i>	£3.99 p/m (UK)	UK	Go Henry (non-bank)	Prepaid Visa Card	Kids aged 6-18
<i>FLX</i>	\$2.50 p/m, or \$25 p/y (AUD)	Australia	Inloop, Macquarie and Westpac Bank	Prepaid Mastercard	Family, school age
<i>Revolut <18</i>	\$9.99 p/m (AUD)	Global	Revolut banking services, (non-bank)	Prepaid Visa card	Family, kids aged 6-17
<i>HyperJar</i>	Free	UK	Modulr FS (non-bank)	Prepaid Mastercard	Family, Kids age 6+
<i>iAllowance</i>	App store \$4.99 download	Global	Jump Gap software, no banking features	No card, App only	Family, Kids age 4+
<i>S'moresUp</i>	Freemium, \$4.99 p/m (US)	USA	No	No card, App only	Family
<i>Chores & Allowance Bot</i>	\$29.99 p/y (US)	Global	No	No card, app only	Family

Table 1: Children's finance app operating model overview

We then documented the app features by reviewing information in Appstore descriptions, company websites, and product reviews to identify the range of features spread across these apps, and map their presence within each (see Table 2).

The final list of features were coded according to five key design functions: chore management features (numbers 1-7); child savings features (numbers 8-9); payment and spending features (numbers 10-15); parental control features (numbers 16-18); and more niche banking and finance features (numbers 19-22). The coding analysis

revealed three distinct child finance app categories that drew on different sets of design functions, offering varied affordances for mediating children’s financial literacy and consumer socialisation. These app categories were: those designed solely with features to manage chores or pocket money without connection to banking services (Green in Table 2); apps designed to mediate children’s finance through savings, payment, and spending features without any chore related functionality (Blue in Table 2); and apps that seek to combine both finance and chore features and functionality to mediate child financial management (Red in Table 2).

Feature List	App Type and Name	Combined Chore and Finance apps					Finance apps			Chore apps		
		Spriggy	Kit	Greenlight	Gimi	Famzoo	Go Henry	FLX	<18 Revolut	HyperJar	iAllow-ance	C&A Bot
1. Set chores												
2. Approve chores												
3. Chore notify												
4. Chore calendar												
5. Chore alert												
6. Chore payment												
7. Rewards												
8. Set savings goals												
9. Monitor savings												
10. Auto allowance												
11. Prepaid card												
12. Spend on/offline												
13. Monitor spending												
14. Spend notification												
15. Cash withdraw												
16. Set spend limits												
17. Merchant block												
18. Temp block card												
19. Personalise card												
20. Money transfer												
21. Investment plans												
22. Interest payments												

Table 2: Children’s finance app feature comparison (Green=chore apps; Blue=finance apps; Red=chore+finance apps)

Themes of child finance apps: management, mediation, datafication

After identifying five key design functions and three categories of child finance apps, our analysis considers three emergent themes in which these apps are significantly

impacting children's financial lives: management of child household labour; mediation of children's financial agency; and datafication of children's economic participation.

Management of child household labour uses chore management features to ostensibly reinforce traditional financial values such as awareness of the value of money and instilling a strong work ethic created via compensation for their domestic labour and allowance payment on completion (Sato, 2011). Chores are also gamified via in-app rewards such as virtual badges, stickers and digital tokens that contain no financial value (Bjering et al., 2015). Here, children's household 'work' is translated into 'play', creating contradictory meanings around the economic value of their labour and financial socialisation.

Mediation of children's financial agency occurs through features designed to support savings, child budgeting, as well as purchasing through payment systems and prepaid debit cards. Payment and spending features ensure children are socialised as active consumers (De La Rosa and Tully 2021). In turn, datafication features that digitally record all spending transactions or block cash withdrawals limit children's financial privacy, independence, and agency, whilst establishing conditions for lifelong finance tracking.

Datafication of children's economic participation occurs through a range of data collection and control features operating at various scales of operation and visibility. Parents can monitor and control children's finances through features such as temporarily blocking their spending or blocking age-inappropriate merchant categories. The datafied financial lives of children connects with a wider intimate surveillance of childhoods within family life that operate between care and control (Albrechtslund and Lauritsen, 2013; Leaver, 2017; Richardson et al., 2017). Parental monitoring is underpinned by care for children's financial safety and wellbeing, though simultaneously entrenches norms of parental authority and surveillance, reducing children's financial autonomy (Mavoa et al., 2023; Page Jeffrey, 2021). Beyond families, child finance data is collected, aggregated, and analysed to create economic value for digital platforms, banking institutions, and the financial industry. Here power imbalances may be less visible but much more pronounced for children's financial futures.

This study is significant in bringing together and contributing to children's financial socialisation and digital platform studies. The research shows how datafication operates in child finance apps to mediate children's consumer agency by emphasising the development of financial literacy and independence. Yet they are fundamentally organised through processes and effects of datafication, generating valuable data to control the economic lives of children through parental and corporate surveillance. This study is limited to app feature data, and so future work should investigate the use and perceptions of these apps through more situated user research methods with families and children.

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