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# **An App a Day Keeps the Doctor Away: A Visual Case Analysis of the Self-Optimization Ideologies Downloaded onto Apple Users as They Download Applications**

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AN APP A DAY KEEPS THE DOCTOR AWAY: A VISUAL CASE ANALYSIS OF THE  
SELF-OPTIMIZATION IDEOLOGIES DOWNLOADED ONTO APPLE USERS AS THEY  
DOWNLOAD APPLICATIONS ON THE APPLE APP STORE

by

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## ABSTRACT

This visually thematic qualitative case analysis seeks to advance cyber-sociology by analyzing the hyper-under-attended relationship between interfaces and discourses. Here, the interface under investigation is the Apple App Store, examined for the ways in which the platform is discursively encoded with particular ideologies, ideals, desires and narratives downloaded onto users as they download applications. Such is explored via a two-part research question inquiring: Which type of applications enjoy the most promotion on the Apple App Store and what cyber-architectural tools are herein used to optically exalt them? To investigate this, an iOS 11-operating iPhone was used to frequent the store's "Today" section over a period of twelve weeks — a segment of the platform manually curated by Apple employees. Data was analyzed on Microsoft Excel, coded by an overarching theme of self-optimization, as well as the subsidiary themes of self-reliance, self-improvement, corporeal regulation, social capital, and non-self-optimization miscellaneous. Findings reveal that promotion on the App Store is not neutrally distributed, as applications oscillating around the behaviour of self-optimization takes promotive spotlight over play-centric and/or miscellaneous mobile programs. Stanfill's (2015) "interface-as-discourse" framework theoretically informs this paper, with her work later situated in intertextual conversation with Han's (2010) "achievement societies" and "auto-exploitation". A discussion section introduces the neologisms "iDeologies" and "technographing" to conceptualize results. This paper concludes with an emphasis on the significance of the interface-discourse nexus to sociology, as these virtual platforms — shot through with top-down ideologies picked bottom-up— complicate the canon's structure-versus-agency debate in its failure to be slotted into the binary.

**KEY WORDS:** Apple App Store, interface, discourse, self-optimization, auto-exploitation, neoliberalism, applications, technographing

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## INTRODUCTION

Every June, following Apple's highly anticipated keynote address unveiling renovations made to Apple Watches, iPhones, and MacBooks, the company undergoes an annual trial-by-Internet. Now routine, the company is momentarily thrown to the virtual wolves of software developers and armchair programmers deconstructing the reveal, design, interface, and marketing of their reimagined devices – with this taking the e-form of long op-eds and reaction videos critiquing the rhetoric of “innovativeness” bestowed onto Apple users via these new gadgets (Safian, 2018). Whilst a current netnographic<sup>1</sup> canon runneth over with iPhone-centric pieces cracking open the iOS interface and the narratives imprinted onto it, such an analytical vigour is seldom allocated to the Apple App Store – a seemingly neglected internal interface that is shot through with its own host of discursive narratives and its own synchronously changes made to its operating system (OS). Despite being christened by a North American software engineering canon as Apple's “most revolutionary creation” and the “apple of Apple's eye”, there exists no scholarship critically investigating the App Store, no literature analyzing how this outwardly playful platform is too strategically encoded with narratives and ideologies that users are made to download as they download applications (Libin, 2013; Reisinger, 2016). To remedy this gap in cyber-sociology and wider netnographic scholarship, I have crafted a visually thematic qualitative research project investigating how these ideologies, ideals, desires and narratives are virtually projected onto users — explored via a two-part research question

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<sup>1</sup> A portmanteau of “Internet” or “network” with “ethnography”, netnography is defined as an “ethnographic online research method” concerned with “understanding social interaction in contemporary digital communications contexts” (Bartl, Kannan & Stockinger, 2016, pp. 165–167.) Introduced by marketing professor Robert Kozinets in 1995, netnography is “a specific set of research practices related to data collection, analysis, research ethics, and representation, rooted in participant observation” (Bartl, Kannan & Stockinger, 2016, p. 167).

inquiring: “Which type of applications enjoy the most promotion on the Apple App Store and what cyber-architectural tools are herein used to optically exalt them?”

## LITERATURE REVIEW

### *Attention All: The Attention Economy Has Arrived*

It was at the 1971 *Computers, Communications, and The Public Interest* forum where behavioural economist Herbert Simon gripped the attention of conference attendees with his introduction of the words “attention economy” into the technological glossary. In what now reads as a prophetic text, arriving well before the advent of clickbait articles, article length calculators, and “skip ad” widgets, Simon’s text (1971), entitled “Designing Organizations for an In-Formation-Rich World”, hauntingly warns:

[I]n an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes. What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.

Canonized quickly within economics, Simon’s (1971) prognostic piece finds itself inter-disciplinarily taken up by other social scientists — namely marketing psychologists, cyber-anthropologists and visual sociologists — using the concept to investigate the relationship between Internet and attention (Kelly, 2008; Williams, 2018; Yu & Kak, 2013). While these theorists are informed by differing philosophical assumptions lending to distinct readings, research using Simon’s (1971) “attention economy” nonetheless orbits around the Internet-attention nexus — with this most often taking the form of scholars analyzing the various architectural and psychologically-informed techniques used by corporations (e.g. Facebook,

Twitter, Instagram, BuzzFeed) to retain attention on the web (Goodwin et. al., 2016; Marwick, 2015; Tufekci, 2013). What's more, when attending to this virtual relationship, these cognitive, marketing and/or cultural-foci theorists frequently draw upon the elements of art and design — space, form, texture (etc.)— to conceptualize how particular optical tactics are used competitively by such companies for the purpose of seducing the consumer eye (Goodwin et. al., 2016; Kim, 2016; Stanfill, 2015; Wedel & Pieters, 2006). Tangibly, this can be seen in the works of techno-anthropologists akin to Stanfill (2015), Josephson (2011) and Wogalter & Leonard (1999) examining the ocular advantage of selecting a sans serif typeface over a serif font when attempting to allure the human eye; virtual sociologists such as Byron and Roberts (2017) discussing how Tumblr uses rainbow-coloured icons in the Pride month of June to draw in more LGBTQ folk; digital media theorists Cowley (2017), Quinn (2017), Berberick and McAllister (2017) analyzing BuzzFeed's invocation of identity-work via articles entitled "19 Ways to Know You're An Overachiever"; perception-foci psychologists Elliot and Maie (2014) and Labrecque and Milne (2012) investigating the use of the colour green knowing that it is has the evolutionary perk of being the colour the human eye can see the most variance; cultural theorists Kim (2016) and Soegaard (2018) analyzing how Apple uses negative/white space to not overwhelm the brain and explicitly maintain attention; as well as visual sociologist Connor (2019) discussing how Instagram explicitly uses movement via moving texts to draw in the human eye.

Across Business Insider research articles and think pieces by armchair psychologists engaging Simon's (1971) attention economy, a particular corporation finds itself unparalleledly exalted for its ability to retain consumer attention – that is Apple Inc (Blake, Nazarian & Castel, 2015; Schroeder, 2015). Sanctified in articles entitled "Why Apple is Best When it Comes to Understanding Customers " and "We Are Emotionally Attached to Apple and it Shows", Apple's

attention-gripping marketing is ceaselessly strut down a virtual runway of technological, architectural, artistic and financial praises — eulogized for its trademark use of minimalism fixated on simplicity, intuitiveness and functionality (Kulkarni, 2016; Strauss, 2018). Such an aesthetic philosophy concerned with not overloading the user lays at the core of Apple's branding strategy successfully captivating its consumer base (Bajarin, 2012; Lim, 2017). Empathetic to the fact that the virtual landscape inundates users with “too much information”, the company attentively creates and recreates an operating system premised on uncomplicating yet individualizing the user experience — one that is synchronously user-friendly and user-flexible (Apple 1998, Bajarin, 2012; Kim, 2016). Operating its operating systems with the adage that “every function should be reachable within three touches”, Apple's minimalist modus operandi opts in favour of emphasizing intuitive design over exhaustive features, done strategically — according to Apple's Senior Vice President of Worldwide Marketing Phil Schiller (2015) — to corporally distinguish itself, providing respite in lieu of relentless options to the often over-stimulated consumer (Apple, 2001; Apple, 2002; Apple, 2005; Kim, 2016; Obendorf, 2009).

For developer Shayna Smilovetz (2018), such a carefully designed iOS premised on repose and practicality is not only intuitive in its form, but emotive in its function. Though she does not elaborate on this assertion, Smilovetz (2018) nonetheless makes the contention that Apple's marketing strategy: “uses simplicity, a clean design and most importantly; a desire to become part of a lifestyle movement. This well-crafted desire appeals to our most basic emotional need: to be part of something bigger than ourselves”. Ultimately, it is this sense of ease and purposefulness — brought to one via trademark minimalism — that prompts Apple users to lie in anticipated wait every June for the company's keynote conferences.



### *When Push Comes to Nudge*

For marketing psychologist Phil Creamer (2017), Apple's minimalistic yet deeply effective affective design is a prime exemplar of "choice architecture" – a term originally coined by behavioural economists Thaler and Sunstein (2008) to refer to the practice of influencing individual choice by making deliberate changes to architecture and "the context in which people make decisions" (Thaler et al., 2013, p. 423). Such a concept views the spatial, environmental and/or stylistic presentation of choices as capable of impacting consumer decision-making — take, for instance, the replacement of a self-serve fruit bowl with a manned fruit-cart making rounds, now nudging workers into constant awareness of the fruit. Such can also find exemplary image in the calculated placement of marked down concessions at the front of stores nudging customers into last minute purchases, as well as in the strategic changing of office meetings from seated to standing so as to nudge workers into shorter meetings inducing via muscular fatigue (Kongsbak, et. al., 2016; Marciano-Olivier et. al., 2019; Szaszi, et. al., 2017). Here, the excessive use of the word "nudge" is deliberate, as Thaler and Sunstein (2008) see this prodding action (of "nudging") as integral to the notion of choice architecture, explaining that "Choice architects are self-consciously attempting to move people in directions that will make their lives better. They nudge" (p. 6). It is worth noting that the act of nudging is defined by Thaler (2007) as "any aspect of the choice that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives".

On the MacBook, such a probative action takes the illustrative form of the "Allow" or "Deny" buttons presented alongside permission prompts, such as the pop-up window explaining that "iTunes wants to connect to [itunes.apple.com](https://itunes.apple.com)." The nudge can be seen graphically rearing its head herein, for the affirmative option ("Allow") is bolded, highlighted blue and is made

momentarily selectable by the enter button, whilst the negative latter (“Deny”) remains colourless, and accessible only via a hovered over cursor and manual election. Furthermore, if one chooses to select the un-highlighted “Deny”, the prompt pops back up immediately as a point of confirmation – one that reads as an attempt to signal error by providing the user with an opportunity to correct their digital faux-pas (Jameson, et. al. 2014; Thaler & Sunstein; 2008). Ultimately, as the name suggests, operating here is the deliberate use of architecture to influence user choice, as the bolded, coloured and easily accessible “Allow” button draws upon the elements of colour, texture and value to visually telegraph to users that *this is the better option* (Apple, n.d.). This is further fortified when one recalls that the colour blue on Apple devices is assigned to stimuli that has been previously selected by a user, thus effectively using architectural alterations (a change in a button’s pigment; the shortcut reconfiguration) to convey the message that this decision has either a) been selected already by oneself or has b) been selected by Apple for the person and is thus the more optimal of the two (Apple, n.d; Perez, 2017; Thaler & Sunstein; 2008). Regardless, though, consumer agency remains herein uncompromised, as the graphic cues cluing users into picking up a particular behaviour – e.g. to authorize a computational action – remains just that: a clue that they may lean into or back away from.

### *Choice Architecture, or Architected Choice?*

Apple’s use of choice architecture, however, is the subject of suspect in digital media theorist Steven Ecott (2017), who — in his text “iPhone X: The end of privacy?” — calls into question the degree of choice afforded within the company’s digital landscapes. Ecott (2017) turns particularly to the new facial identification technology (FaceiD) replacing haptic digit identification software (TouchiD) on all iPhone, iPad and iTouch models post-September 2018 –

contending, now, that Apple is communicating onto consumers that the authentic Apple user is one who is technologically in-the-know, in-the-now, and embraces “progressive” software of facial recognition. This telegraphing takes visaged shape in iPhone X advertisements reimagining FaceiD as futuristic – tracing itself to ads exclaiming “Unlock with a look, pay with your face — your face is your password. You’ve never seen anything like it and its never seen anything like you” (Apple, 2018a; Savov, 2017). Such advertisements also feature the use of identity-invoking statements paired alongside their marketing of avant-garde modernity, finding substantiation in the words of “Your iPhone... identical twin-proof [...] Your iPhone now recognizes you even in the dark and will adapt to your physical changes” and “FaceiD does so much more than unlock your iPhone. So you can forget about typing user names and passwords” (Apple, 2018a; Apple, 2018b).

Though Ecott (2017) is cognizant of the fact that consumers are not confined to facial identification technology and maintain the agency to switch from FaceiD to a passcode in their settings, he remains nonetheless critical, arguing that Apple makes the pathways toward (FaceiD) increasingly expedient, and path away from it decidedly cumbersome, and ultimately anachronistic. Upon investigating the device’s performance, he finds that there is a delay between the passcode lock-screen and the home-screen after filling in a numeric password – one that is nonexistent when FaceiD is enabled. Whilst Ecott’s (2017) critique is more broadly concerned with how Apple deliberately uses its seemingly agentic interface to groom users into passivity with privacy-infringing, security-breaching technology, his article remains firmly wedded to uprooting the seemingly counterfeit notion of choice architecture on Apple’s interface. For him, of interest is the false ultimatum existing here, as one option (FaceiD) enjoys much more promotion and is framed as emblematic of the progressive user, meanwhile the latter

(passcode) brings with it progressive damage to the reaction time of one's device and incrementally lost time. Here, Apple effectively thrusts, rather than nudges, its consumers into the direction of particular behaviours and practices – with the company effectively designing a scenario where it is more efficient, culturally acceptable and ultimately in one's best interest to comply orbit around the idealized behaviour projected therein. Here, this means agentially folding oneself into passively engaging with the security-breeching FaceID – one where Apple promises that “FaceID does so much more than unlock your iPhone. So you can forget about typing user names and passwords” – even if one may prefer the passcode option or, and according to an unapologetic Ecott, their privacy.

### *Interface as Discourse*

Nestled in Ecott's (2017) commentary on Apple branding its user base as synonymous with an onwards-and-upwards rhetoric of modernity, and further echoed in Smilovetz's (2018) reading the Apple consumer as one dually purchasing into a “lifestyle movement”, lies a sub-textual realization that interfaces are avenues through which narratives (of desire, ideologies, ideals) can be and are virtually communicated. This backgrounded assertion is made centre stage in Mel Stanfill's (2015) text “The interface as discourse: The production of norms through web design”. Here, Stanfill (2015) examines the architectural design of five official science fiction websites (e.g. Battlestar Galactica, Star Wars, Star Trek etc.), and five sports websites (e.g. ESPN, MLB, Calzone.com etc.), analyzing their use of colour, sound, text and space to argue that websites are not neutral strands of HTML coding, but rather “reflect” and “non-deterministically reinforce” particular narratives, ideologies, desires, and/or normative social logics that are imputed in by the programmer onto users (p. 1059). To critically examine how the design of websites transmit specific social mores and folkways, she introduces the analytical tool

of “discursive interface analysis” – a method of examining the temporally-specific, contextual discourses structuring knowledge about categories and belonging that then become mapped onto website interfaces (Stanfill, 2015, p. 1061). With this, she finds that these sites use the strategic architectural traits of identifying terminology, colour and visual placement (“above the fold” versus “below the fold”) to telegraph to users what constitutes being a real (or “ideal”) fan of these franchises entails (Stanfill, 2015, pp. 1060-1064).

This finds first substantiation in her revealing how one site architecturally communicates the proper fan as one who possesses the financial and temporal capital to attend events and visit stadiums or conventions – an individual with ability to purchase into limited edition paraphernalia or athletic memorabilia. For Stanfill (2015), such a finding lay in the website’s featuring of a bright yellow “Fan Zone” icon leading to a page filled with purchasable merchandise such as “tickets, t-shirts, or DVDs”, as well as “directions, parking, visiting Berkeley, hotel accommodations, tailgates and pregame parties, away travel, and a Memorial Stadium map” (p. 1068). The strategic use of virtual architecture to convey a particular narrative finds itself mirrored on a dark blue CalBears.com website featuring only a slideshow of the school’s teams and a bright yellow button reading “BUY TICKETS NOW” – an icon that is the only interactive item on the screen, effectively communicating (via the absence of other features) that the only action a user should be engaging in is purchasing into the spectator sport (Stanfill, 2015, pp. 1068). Stanfill (2015) herein reveals that the technological infrastructure of websites (i.e. interfaces) are conduits of normative power – encoded with messages of what constitutes as idealized, normative behaviour by virtue of what gets architecturally exalted “above the fold” and what gets left “below the fold” (Stanfill, 2015, p. 1064). Purposefully encoded in the HTML coding of websites, here, is what a narrative of fans should be interested

in, what they should perceive as vital and which behaviours they should orbit around – see: Star Wars telegraphing event attendance as normative fan behaviour by including “Event News” as a category under their Fans header. Embedded in Stanfill’s (2015) consistent use of the modal verb “should” — one that indicates a “desirable, expected state” as well as an “obligation, duty, or correctness” — lives her argument that by virtue of what is highlighted, deleted, bolded, lightened, struck-out, superscripted, or scripted as visually super, interfaces discursively communicate proper, idealized ways to perform fanaticism via deliberately-labelled buttons, strategically placed links, and/or carefully-coloured banners (Stanfill, 2015, pp. 1064-1067). Stressed, here, is ultimately the reality that these website interfaces are by no means accidental, superficial entities created at random nor organically, but rather are carefully constructed, psychologically-informed mediums hypertextually shot through with narratives, ideologies, desires, and/or normative social logics encoded (consciously or subconsciously) by developers (p. 1059). Ultimately, Stanfill’s (2015) discursive interface analysis reads as a call-and-response to Ecott’s (2017) anxieties and Smilovetz’s (2018) affinities toward a lifestyle-promising Apple’s iOS coded with narratives of progression — one that control users by telegraphing particular behaviours as more common sense or desirable in an attempt to encourages that outcome.

Despite Apple being mentioned ad nauseam across multiple canons as a quintessential dominator of the attention economy and/or as a pioneer of minimalist interfaces, there exists little literature theoretically cracking open the interface-discourse nexus in an effort to investigate what types of — as well how precisely — ideologies and narratives are virtually telegraphed onto the company’s consumers. The greatest bulk of the research on Apple interfaces are concerned superficially with the iPhone’s surface or software design — never once attending

to the intra-interface residing within the iPhone that is the Apple App Store. Absent, here, is scholarship critically analyzing how such a seemingly playful platform – one routinely recognized amongst the software developing community and app world as Apple’s “most revolutionary creation” – may too be strategically encoded with ideals, desires and norms downloaded onto users as they download applications. It would be generative to use the theoretical tools provided by Stanfill’s (2015) interface-as-discourse to analyze what kind of ideological narratives, ideals, desires etc. are encoded into and onto the consumers of one of the world’s most successful brands, as well as on such an esteemed platform.

*Contribution to Sociology and Beyond*

To the sociological canon, such a project attentive to the App Store and what ideologies and ideals are architecturally downloaded onto users as they download applications is four-fold pertinent, as: 1) it showcases how seemingly mundane, taken-for-granted technologies can (and are) shot through with ideologies; 2) it is the first scholarship of its kind that engages with scholarly literature when discussing the store; 3) this paper is genealogically fruitful to the critical media studies canon, for the store’s “Top Trending Charts” provides insight into what is (or was) deemed socially lucrative synchronically (at a particular moment in time) and diachronically (across time); as well as 4) such a project presents the opportunity to engage in hyper-textured conversations about autonomy and technology beyond the ivory tower, as a re-reading of the App Store prompts iPhone users to reconceptualize how they engage with their devices – potentially prompting critical dialogues on how control may be subverted.

Furthermore, while this project does contribute to the discipline’s dual niches of visual and virtual sociology, the project’s greatest offering lies in the fact that it fruitfully complicates the canon’s “structure versus agency” debate fixated on determining whether one conducts

themselves autonomously or in a way determined by their contouring social structures. Such a complication of this timeless debate takes shape in a final *Conclusion* section – building on the *Discussion* section – to analyze the ways in which self-optimization applications exalted on the Apple App Store promotes the hyper-textured act of auto-exploitation. At its core, presented here is a major research paper that slices away at the slice of life mentality afforded to the App Store – one that seeks to critically investigate how the Apple interface strategically nudges users toward downloading particular behaviours, ideologies, desires, ideals etc. as they download applications, and what may seemingly be the pressing consequences that live in such a practice.

### APPLE APP STORE

Recognized amongst the software engineering community as Apple’s “most revolutionary creation”, the App Store is a digital distribution platform enabling users to browse and download apps developed with the company’s iOS software development kit (Apple, 2008; Libin, 2013; Moon, 2018; Reisinger, 2016). Beginning in June 2008 with a modest niche of 500 iPhone applications, this virtual marketplace has since burgeoned to now enjoy over 2.1 million apps downloaded over 150 billion times – a success that resulted in the creation of subsidiary application-centric stores for other Apple devices, such as the iPad App Store, the App Store for MacBook and the Apple TV App Store (Apple, 2008; Bonnington, 2013; Ricker, 2008). Quickly, the store cemented itself within the Western cultural imagination – seen particularly via: 1) the lighthearted “My Little Pony” and “Sesame Street” episodes parodying Apple’s 2009 App Store ad mantra “There’s an app for that”; 2) the word “app” itself becoming awarded the “Word of the Year” in 2010 by the American Dialect Society as well as 3) the mimetic explosion of other smart phone companies such as Google and Nokia retaliating against the success of the Apple App Store with virtual marketplaces of their own (American Dialect Society, 2011; Hackett,



2018; Hannaford, 2010; Newton, 2012; Watercutter, 2011). Furthermore, such a “revolutionary” platform has also been respectively located by software and app developers Stuart Dredge (2013) and Phil Libbin (2013) as an emblem of “meritocracy”, with Silicon Valley software engineer Eric Ostar (2014) explaining that the store is “very even-handed in the way it treat[s] people, in terms of not favoring the biggest developers over smaller ones. All you have to do to succeed in the App Store is to make something great... its truly a free-market” (Hackett, 2018; Stevens, 2014, p.3). Present, here, is thus a seemingly redefined business milieu evenly tipping the scales in favour of merit – presented to consumer and developers alike, and perpetually altering what it means to be a user (Dredge, 2013; Libin, 2013).

Since its inception, Apple continues to make alterations to the App Store’s user interface in an effort to enhance user-friendliness — with this finding image in the company’s novel iOS3 feature stretching page capacity on the iPhone home screen in response to a user demand for more app space, and/or in a iOS6 redesign enabling users to remain in the App Store when downloading multiple apps rather than being redirected to the home screen following each new



*Fig. 1: Old App Store (iOS 6-iOS10) vs. reconfigured, new App Store (iOS11-present)*

install (Gauchet, n,d; Hackett, 2018; Foreman, 2012).

The store, though, received its most extreme architectural makeover with the advent of iOS11, for it was this software upgrade that saw the introduction of a dynamic “Today” section – one which remade a once algorithmically-run “Featured” section spotlighting the “Top 25 Grossing/Free/Paid Apps” anew – now with a non-hierarchical, graphic, webzine-style spread (Apple, 2018c; Hackett, 2018, Silver, 2018). Emphasis, here, is

on marketing specificity over standardized chart-based advertising used pre-iOS11 (Figure 1), with the Today section debuting four new topic-specific ways of promoting applications and endorsing content: i) image-centric *App of the Day* segments highlighting one particular application at a time (Figure 2); ii) *Daily List(s)* — or simply *List(s)* — spotlighting five to seven applications in a short list format (Figure 3); iii) *App Assortments* underlining ten or more applications in a long list format, often with opening short text (Figure 4); and iv) *Articles* providing 300 words-or-less textual insight into a certain app, or an array of apps grouped together thematically (Figure 5)(Apple, 2018c; Hackett, 2018; Silver, 2018). Titular examples of these segments include the topic-strict Daily Lists entitled “Track Your Time” and “Math It Out”, with the former featuring self-management applications such as “Focus Timer – Keep Your Focus” and “HoursTracker: Hours and Pay”, while the latter remain concerned with math-foci programming akin to “Khan Academy” and “Graphing Calculator”. Furthermore, it is worth noting that in addition to the Today section usurping the Featured panel, also purged on the iOS11 was a host of 32-bit gaming programs no longer compatible with this new iOS software update – an amendment dubbed by software developer and TouchArcade editor-in-chief Eli Hodapp (2019) as an “appocalypse”.

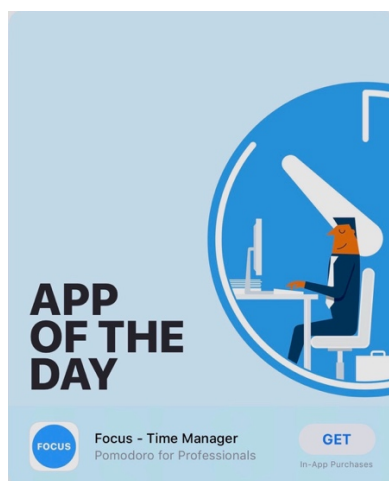


Fig. 2: *App of the Day*

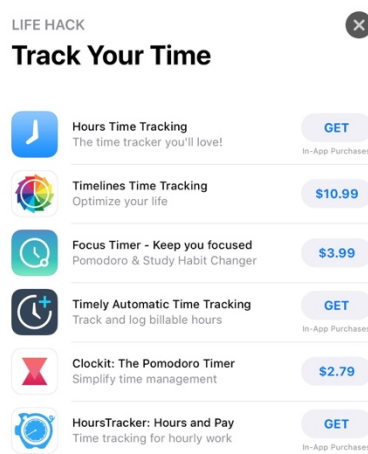


Fig. 3: *Daily List*

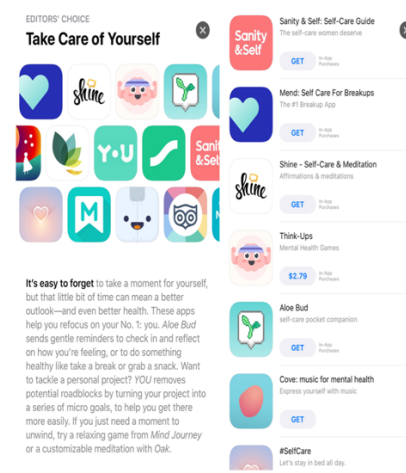


Fig. 4: *App Assortment*

On the Apple website, the Today section is formally presented as a daily-updated robust hub that is “A great place to find helpful tips and tricks” – one designed “to keep you informed and inspired by the ever-evolving world of apps and games” (Apple, 2018c). Stressed, here, is the notion of *curation*, as the reconfigured platform now features a “Team of full-time editors” hired to “bring you unique perspectives on what’s new and next in the world of apps”, ultimately humanizing what was once a numbers game (Apple, 2018c). How such curation plays out, it must be noted, is in accordance with location and iOS version – for what is presented on the App Store differs across nations and iOS editions. For instance, a Canadian user running on iOS 11.1.2 would be met with a different Today section than a Chilean iPhone user operating on iOS 11.4; a U.S.-based user with a store location set to Spain running on iOS 12.3.1, though, would be faced with a different store than a U.S.-located user running on the same iOS set to their default (U.S.) location. Alternatively, two Indonesian users running on iOS 11.5.1, both with their locations set to Indonesia, will be met with an extremely similar if not identical app stores save for the ordering of particular segments (Apple, 2018c; Hackett, 2018).

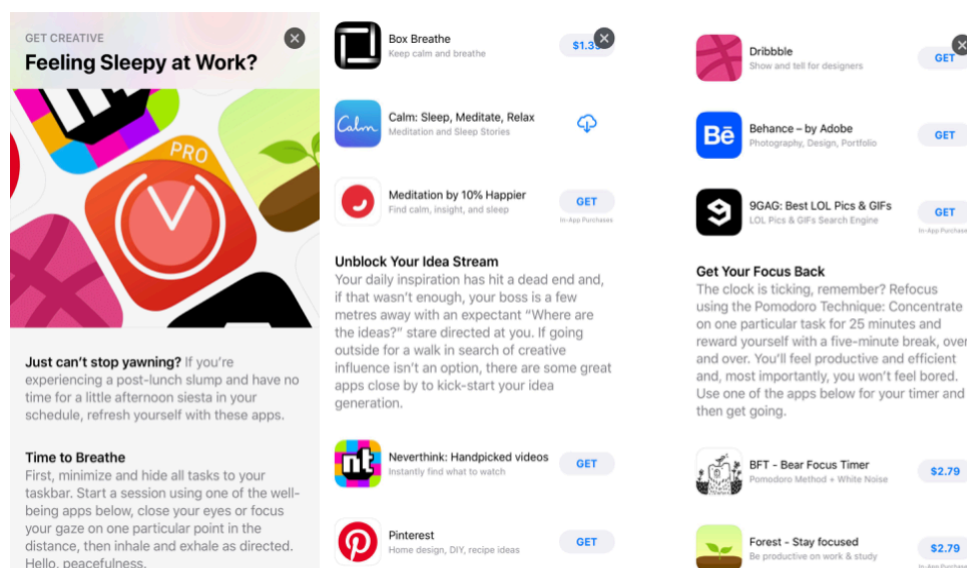


Fig. 5: Article

Here, the “Thoughtfully crafted; [e]xpertly curated” internal interface that is the Today section will be the focus of this paper, as the group of Apple employees now manually apple-picking which applications are to be promotively exalted provides powerful insight into what ideologies, ideals, desires and/or narratives the company seeks to discursively map onto its users (Apple, 2018c).

## METHODOLOGY

### *Focused Research Question and Objective*

This research project aims to investigate how the taken-for-granted interface that is the Apple App Store is sub-textually — and hyper textually — encoded with ideals and ideologies that are projected onto users as they navigate the platform. A sense of urgency purposefully undergirds this paper, as emphasis is placed on how such a marketplace — one that is at best left off the imagination (see: the lack of scholarly literature on the platform and minimal discussions regarding it post-2010) and at worst located as a positive entity (see: the host of software developers respectively locating it “meritocratic”) — is an avenue through which narratives of idealized subject-hood, achievement, and desire are implanted into its virtual coding. For this reason, I introduce the terms “iDeologies” and “technographing” to the discursive canon, namely for the purpose of providing tailored theoretical tools to better conceptualize such a pressing reality. Furthermore, it is here where I analyze what kind of applications (i.e. which category do they belong to, what is the stated purpose of the app etc.) enjoy the most promotional exaltation on the platform, and what architectural techniques are therein used to spotlight them. Recall now that to investigate this in depth, I have crafted a research question inquiring: “Which type of applications enjoy the most promotion on the Apple App Store and what cyber-architectural tools are herein used to optically exalt them?”

Concerning neologisms, I propose the term *iDeologies* to refer to any ideologies, ideals, narratives and/or desires that are discursively communicated by way of, as well as within, technological interface(s). The term traces its stylization to Apple's trademark use of the lowercase "i", a branding choice explained by CEO Steve Jobs at a 1998 iMac conference wherein he asserted that "The 'i' means some other things to us: internet, individual, instruct, inform, inspire" (Snell, 2018). Whilst this term is proposed here in an attempt to provide working terminology that aids in conceptualizing the relationship between discourse and interface, a second purpose undergirds it: the fact that terminology created within the ivory tower discursively calling a subject into existence carries with it a sense of authentication to the matter at hand – effectively possessing the capacity to draw greater attention to the discourse-interface nexus. Any scholars investigating this relationship or analyzing the discursive communication of ideologies, ideals, narratives and/or desires onto virtual interface(s) are encouraged to engage with "iDeologies" now encapsulating and highlighting such a phenomenon with specificity.

Furthermore, the second term proposed now is that of "technographing". Here, I seek to provide a unique word to a netnographic canon reliant upon the entertainment and sports concept of "telegraphing" – a term that, in the case of the former, refers to the "information communicated to the audience through acting or nonverbal clues, providing a clear hint of the meaning or outcome of a dramatic action" (entertainment context) whilst in the latter, denotes the act of "unintentionally alerting an opponent to one's immediate situation or intentions" (sporting context)(New Oxford American Dictionary, 2016). In lieu of using a term belonging to two differing canons, I put forth the verbal noun "technograph" (or its present participle form "technographing")— one solely concerned with examining how interfaces deliberately, sub-textually, and hyper-textually communicate ideologies, ideals, narratives, desires etc. that are

tacitly imposed onto individuals as they interact with them. The same reasoning necessitating the scholarly introduction of “iDeologies” is dually relevant here, and I champion all scholars working within the netnographic or virtual sociological canon to engage with “technographing”, a term intentionally crafted to further understand and fortify the relationship between interface and discourse.

### *Data Collection and Analysis*

Data was collected using an iPhone 7S Plus operating on iOS 11.2.1<sup>2</sup>. It is important to note that three rationales underpin this decision to particularly select the iPhone App Store in lieu of its sibling counterparts that is the iPad Apple Store and the App Store for MacBook: 1) any and all of the research existing on the hyper-underexamined App Store oscillates around the iPhone, as the marketplace was initially made for, as well as was launched on, the iPhone (Apple, 2008); 2) within the corporate canon, the iPhone App Store is formally recognized as the default and/or official App Store, as it referenced as the “App Store” on the Apple website, and does not remain titularly tethered to its wider contouring device as seen with the iPad Apple Store and the App Store for MacBook; and finally, 3) the fact that the iPhone’s App Store boasts the most applications (2 million and counting) across all Apple device stores – MacBook, iPad or TV. Moreover, it is must be surrendered that the Apple App Store was also selected over other application stores – Android, Google, Amazon, Blackberry and third-party variations– given its emphasis on personalized curation; none of these platforms include a subdivision similar to the Apple’s Today section featuring daily handpicked lists, unique artwork and creative articles invoking identity and a sense of an individually-tailored experience. Instead, they remain rather

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<sup>2</sup> This was chosen solely due to convenience; no ulterior technological significance undergirds this selection.

uniform in presentation, organized categorically and algorithmically by charts of top-grossing, top-free and top-paid applications akin to the Apple App Store pre-iOS11.

Concerning the data collection process, screenshots were taken of the Apple Store daily over a period of twelve weeks – from March 7, 2019-June 7, 2019 – on an iPhone 7S running on iOS11. Data was recorded using a blank Microsoft Word (2016 Home Edition) document to note descriptions of the store during this period. As previously stated, attention was specifically allocated to the novel “Thoughtfully crafted” and “Expertly curated” Today section. Analysis occurred using Microsoft Excel (2016 Home Edition) whereby observations documented from the App Store’s daily occurrences were then plugged into and categorized on a spreadsheet by themes as they emerged. Given this, the type of coding herein used was axial coding, as this prevailing qualitative analytical strategy sees the researcher create themes and/or categories by curating codes/labels ascribed to words and phrases. Coding was informed by Tesch’s (1990) “Eight Steps in the Coding Process” supplied in Creswell and Creswell’s (2018) text, for such tips are specifically used to orient new researchers in the process of thematic data categorization.

### *Validity and Reliability*

To achieve validity within this research project, I drew upon the most frequently used research strategies supplied by Creswell and Creswell (2018) to the new qualitative scholar. Concerning validity, as advised herein, I provided detailed examples when communicating findings for the purpose of providing readers with as much context as possible, given that offering a wealth of detail reduces confusion and increases readers confidence in findings. Secondly, though this paper is not home to an explicit *Reflexivity* section, it must still be surrendered that I reflectively recognize that there is no such thing as a “view from nowhere”, and that as a Western-located researcher, I occupy a subject position shaped by my socio-cultural

neoliberal milieu that will inform my interpretations of findings. Additionally, my identification as an iPhone user — though contentious — serves to work in accordance with Creswell's (2018) suggestion that the validity-seeking qualitative researcher must "attempt to spend a significant amount of time in the field", as my nine-year background with the store furnishes me with extensive knowledge of it. Having consistently navigated this platform over a period of years organically results in a wealth of a knowledge and understanding of the space — information that can only be beneficial for a research paper detailing the site in question.

Concerning reliability — i.e. whether one's research is consistent or stable — I follow two suggestions for qualitative reliability procedures provided by Gibbs (2007), particularly that: 1) researchers should verify transcripts of fieldwork so as to ensure that there are no errors made during the transcription process, as well as that scholars are to 2) ensure that there are systematized definitions of codes across the entire coding process, as changes made to definitions can be problematic to both the data collection process, and for analyses. Regarding transcript and data verification, this was achieved by using the Apple App Store's search panel to verify the continued existence of all articles, lists, and featured segments before plugging data into the spreadsheet; a second verification was also done prior to writing up findings. With respect to standardized definitions, memos containing detailed operationalizations of codes and concepts were herein written in a Word document and informed the coding process to ensure uniformity. The entirety of this project is also time-stamped and available on Office Online for the review of potential auditors if need be. Furthermore, as hinted above, each of the Today section segments (Articles, App Assortments, Lists) discussed herein can be found archived on the App Store — all accessible via the platform's search section should other scholars question this paper's legitimacy, seek to theoretically extrapolate and/or analytically re-imagine findings.



### *Limitations*

Whilst I do rigorously justify my decision to attend exclusively to the iPhone App Store, it is important to nonetheless recognize this as a research limitation restricting the scope of the project. Absent, here, is not only an attempt to look at what ideologies, desires, desires and narratives may be encoded onto the App Store for iPad and MacBook, but dually what ideologies, desires, narratives and ideals are downloaded onto users as they download applications on the differing marketplaces of Google Play Store, Microsoft Store, Amazon App Store, and the offshoot non-centralized open source stores such as Aptoide and F-Droid. These auxiliary stores could be home to a hub of potentially fruitful data – sacrificed, thus, in the opportunity cost of a curation-centric App Store. To remedy this, though, a final section of the papers calls upon other sociologists and scholars alike to investigate such platforms so as to collect more data on these taken-for-granted interfaces – research that can then be read alongside one another in an effort to advance understandings of the discourse-interface nexus<sup>3</sup>.

### THEORETICAL FRAMEWORK: INTERFACE-AS-DISOURSE

Stanfill's (2015) interface-as-discourse has been selected as the theoretical framework informing this platform-centric paper, particularly given the fact that it critically re-conceptualizes the relationship between interface and discourse — reading interfaces as ideology-infused mediums dressed in neutral clothing. It is worth noting that three rationales undergird this decision to select Stanfill's (2015) interface-as-discourse as underpinning framework. Firstly, it is advantageous in that such a theory is mindful of the fact that interfaces – like the App Store – are completely self-selective technologies, and that users are by no means

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<sup>3</sup> It is also worth noting that the decision to look at the Today section on the App Store can be read as a limit, as even though this is rigorously justified herein, findings are not generalizable to the App Store pre-iOS11, nor can they be used to make definitive statements regarding the entire iPhone App Store.

compelled to engage with platforms nor the discourses on it. Secondly, Stanfill's (2015) theory sits congruently with the notions of "attention economy" and "choice architecture" that literarily permeate this paper. Finally, her framework provides an accessible schema detailing which architectural tactics exist, how they are weaponized and for what symbolic purpose. Given this, it proves to be generative to call upon such a framework to examine what are the ideologies, ideals, desires and narratives discursively encoded by one of the world's most successful companies onto/into the most successful mobile application marketplace.

## FINDINGS AND ANALYSIS

A twelve-week critical look at the applications promoted within the store's Today's panel unearthed a particular reality: that promotion on the iOS11 marketplace' is not neutrally distributed, for productivity-enhancing, do-it-yourself-oriented apps routinely take spotlight over play-centric and/or miscellaneous mobile programs. Here, apps met with increased e-publicity are joined in thematic matrimony by a thread of *self-optimization*<sup>4</sup>, as programs orbiting around the attributes of 1) self-reliance; 2) self-actualization; 3) corporeal regulation and 4) social capital find themselves inundated with an inordinate amount of technological assent by Apple. Mobile programming conforming to at least one (or more) of this holy archetypical quaternity are commercially exalted — endowed herein with more strategic visuo-spatial promotion in the form of large decorative banners stretched to fill screens, vibrant colour gamuts, bold typefaces, attention-jerking graphics, deliberately abstract imagery, as well as appeals to evolution, all

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<sup>4</sup> It is worth clarifying that in the context of this paper, self-optimization refers to the "act, process, or methodology of making someone or something (such as a design, system, or decision) as fully perfect, functional, or effective as possible" (New Oxford American Dictionary, 2016; Spicer & Cederstrom, 2017). Such a term was deliberately selected for its applicability to both individuals and interfaces, for it is one that is omnipresent in the computer science canon (found frequently in discussions concerning automated computing and ensuring the optimal functioning with respect to the defined requirements) as well as within the realm of social science (nestled often in dialogues critical of neoliberalism and its responsabilization of its subjects into self-management).

afforded uniquely to such programming. To substantiate such an assertion newly contending that this platform is virtually rife with iDeologies of self-optimization, attention will now be allocated to meticulously showcasing how this transpires on the store, unravelling now the ways in which these four aforementioned thematic strands all weave together in aesthetic harmony – technographed onto users by Apple employees using interface to nudge them toward self-optimization-centric programming.

### *Strand 1: Self-reliance*

#### *Promotional Tactic: Space and Attention*

Self-reliance applications refer to those aiding users develop a dependence on one's own strengths and resources rather than those of others, often by way of upskilling an individual so as to delimit their need for a second party. Here, this finds illustrative image in the autodidact applications of “Turbo Tax” teaching users how to cut out the middle-man by filing taxes independently, as well as in the hyper-featured language learning programs of “Memrise” and “Duolingo” lionizing self-guided study over the classical teacher-student module. Additional examples of self-sufficiency-facilitating programming include apps akin to: “Khan Academy: You Can Learn Anything” offering a massive open online tutoring website with free expert-led video lessons doing away with physical teachers; the visual and kinesthetic “Hopscotch: Programming for Kids” designed to instruct young or beginning programmers how to write simple coding projects; as well as “Vanido: Learn how to sing” – an app that promises to be “more personalized than your music teacher” in its provision of a tailored vocal boot-camp creating octave, posture, control, timbre, and range exercises customized to one's vocal part.

Concerning virtual promotion of self-reliance-foci applications, they frequently boasted the most aggressive promotional marketing – an assertion that finds tracks teeth to the fact that

they are incessantly advertised within/across multiple App of the Day segments filling screens with large image-laden banners *and* are promoted by way of text-based editorials providing further insight into the mobile program. The aggressiveness in such a promotive tactic lies in the fact that these particular segments – App of the Day and Articles– occupy two things: a larger portion of one’s *screen* via optically larger imagery (in the case of App of the Day segments) as well as a larger portion of one’s *time*, given the greater duration required to read the text-centric Articles. Spatially, these applications are more likely to be placed at the top of the screen within the Today section, making them one of the first entities users are introduced to. Such was the case with: “flowkey: Learn How to Play Piano On Your Own”; “Trello – Organize Your Life’s Projects”; “Genius Scan – PDF Scanner: A Scanner in Your Pocket”; “CreativeLive: online classes: Master photography, design, audio, life”; as well as “Turbo Tax” – all enjoying apex placement as the first apps to meet the Apple user eye upon launching the marketplace.

Furthermore, these applications were often graphically promoted with the focus-seizing tactic of flickering text — one which preys on the human eye’s inclination toward moving objects by using text that immediately changes and/or disappears for up to one minute once a user hovers over the content. Such an attention-gathering technique was disproportionately engaged within promotional material for self-reliance programs orbiting around the *end* of the Today section. As discussed by Connor (2019), this promotive technique owes its strategic brilliance to the evolutionary features of the human mind, for the brain is more likely to be enticed by, and re-allocate its attention to, objects in motion— effectively, here, soliciting the user’s unconscious evolutionary engagement with the application’s advertisement in attempt to see what they missed. Multiple examples of this can be found cutting across the store, finding five-fold corroboration in: 1) the weight-loss application “Lose It!”, which featured the initial

text “Lose it! can help you eat well and slim down”, before quickly alternating to “Lose It! – Calorie Counter Weight Loss Nutrition Tracker” upon hovering over it (Figure 6); in 2) the learning-centric “Udemy” displaying the initial text “Harmonica, Ukulele, Spoons. Tap for classes to master them all” that then switches rapidly to “Udemy: 100,000+ Online Courses” once engaged; in 3) the cognitive-enhancing “Elevate” which sees the opening words “Elevate Helps Lift Your Intellect” swiftly transitioning to “Elevate – Brain Training – Award-winning brain games” when stumbled upon; in 4) the self-designing “Canva” witnessing the words “Design it yourself. All you need is *Canva*” speedily usurped by a second text “*Canva*: Card/Poster/Logo Maker” once hovered upon; as well as finally in 5) the organization-facilitating “Reflectly” wherein the initial tagline “Reflectly can help you find the positivity in your day” can be seen alternating posthaste to “Reflectly: Journal for Happiness” immediately after being hovered over.

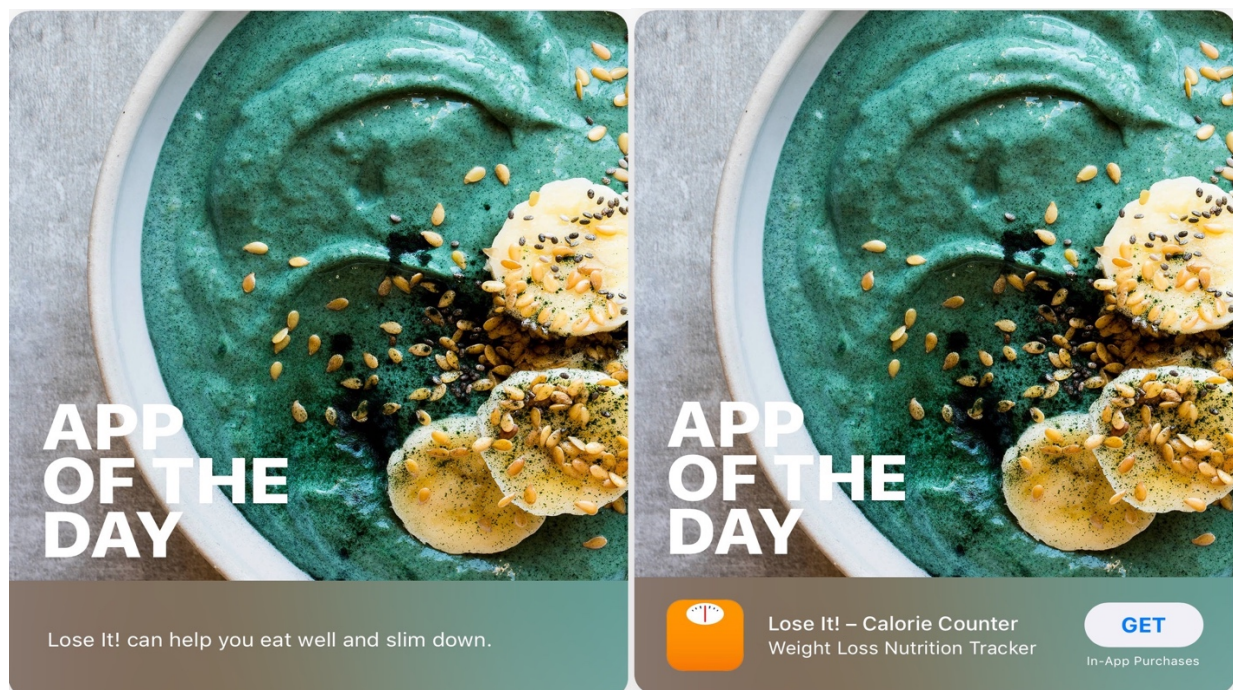


Fig. 6: Quickly alternating bottom text

*Strand 2: Self-improvement/self-care*

*Promotional Tactic: Market saturation*

Self-improvement applications herein refers to the pool of mobile programs facilitating a user's pilgrimage into mindfulness and self-awareness—guided by the use of guided meditation providing a deep dive into the individual hyper-consciousness. Often promoted using the wellness nomenclature of “self-care”, “consciousness/presence” and/or “restoration/reparation”, these self-improvement-foci applications uniquely enjoy the promotional tactic of market saturation. Rather than being partial to a particular type of advertising segment (e.g. seen with self-reliant applications frequently promoted via App of the Day segments, and later with corporeality management apps repeatedly electing Lists as the means of promotional choice), self-improvement applications manifest across *all* segments – flooding the Today section by appearing comparably within App of the Day features, Articles, App Assortments and Daily Lists exalting self-guided wellness. Moreover, the saturating capacity of these applications finds greatest image in the fact that care-centric self-improvement programs routinely spill over into the promotion of other apps –crowding noticeably into Articles, App Assortments and Lists for other different applications. Such can be seen playing out in a sleep-concerned “Early to Bed, Early to Rise” Article, one which featured the promotion of the self-improvement application “Tide: Sleep. Focus. Meditation” tagged onto the end of the e-coattails of this circadian rhythm-centric segment. Moreover, instances of this can be found again in the “Baby Has Arrived” parent-foci App Assortment where a self-care-concerned “Oak – Meditation & Breathing” is promotively tucked in between baby monitor apps and infant feeding Pomodoro timers, as well as further in the health and fitness Daily List entitled “Keep Your Health Kick Going” witnessing a mindfulness-focused “Headspace” nestled amidst the body-sculpting and training regimen programs of “30 Day Fitness” and “Runtastic Results Home Workout”.

Regarding the textual interface, these applications enjoyed the longest – and often alliterative – titles such as “Mind if We’re Mindful of Mental Health?”, “Namaste! There’s Yoga for Every Body”, “Take A Minute To Relax, Breathe, Zen Out Anywhere”, “Taking Good Care of You, Today: Learn How to Find Your Zen in a Hectic World”. The use of long titles is herein strategic in that the user’s eyes are drawn into the bold typeface Helvetica text that is decidedly larger and optically alluring against the negative white space of the minimalist App Store.

Moreover, building on that note of colouration, it is worth noting that self-care applications are recurrently endorsed with shades of green – a decision that must be read as both a strategic promotional and ocular technique, particularly when considering the fact that the human brain has an evolutionary inclination toward this colour, as it can see more shades of green than any other hue (Elliot and Maie, 2014). The extensive use of the colour green takes illustrative image below in the App of the Day segment for “Zen: Relax, Sleep and Meditations” (Figure 7), a promotional segment utilizing multiple hues of green – olive, emerald, sage and seaweed – in its graphic marketing. Though not pictured here, it can also be seen respectively in the long-form editorial “Take A Moment” endorsing “Pause – Relaxation at your fingertips” and “Calm” with multiple artistic drawings utilizing differing tints of green. Finally, this may also be found in a reoccurring “Mindfulness is for Every Body” App Assortment overseeing the respective promotion of “Sanvello – Stress & Anxiety Help” and “Stop, Breathe & Think Kids” with a green forest featuring three unique shades of the colour.



*Fig. 7: “Zen”, promoted with multiple shades of green*

### *Strand 3: Corporeal regulation (regulating the body)*

#### *Promotional Tactic: Volume and Colour schemes*

Corporeal regulation applications are those which champion users to take up the body as an enterprise to be mastered, fined-tuned and tuned into – underpinned by the ultimate goal of maximizing life expectancy and optimizing life. Finding organizational home in the categories of Education or Health and Fitness, these apps enjoy the greatest promotional volume when compared to the quaternity of self-optimization traits. This can be seen through the fact that applications focusing on optimizing the corporeality – e.g. fitness-focused applications akin to “7 Minute Abs” promising complete physical transformation, cognition-concerned programs such as the memory-concerned “Elevate” premised on “training the brain”, control-centric “Zero – Fasting Tracker” facilitating a more disciplined mind-body connection via an app aiding intermittent abstinences from food, or body-conscious apps like *LifeSum: Nutrition & Diet Tips* providing a rolodex of caloric information to manage one’s micro/macro-nutrient ingestion — enjoyed predominantly list-based promotion. These programs respawned in shorter Daily Lists



spotlighting five to seven applications, as well as in longer App Assortments containing an upwards of fifteen applications (Figure 8 and 9) wherein they revel in robust quantitative endorsement. Here, such corporeality-foci apps find numeric realization in the Lists of “Healthy Can be Tasty” featuring five applications (e.g. “Sweat: Kayla Itsines Fitness”, “Fit Men Cook” etc.), “Get Fit When You’re Time Poor” presenting nine apps (e.g. “Carrot Fit: Snarky 7 Minute Workouts”, “Runtastic Results Home Workout”), “No Train, No Gain” spotlighting seven apps (e.g. “Strava: Run, Ride, Swim”, “Lucid: Mental Training”, “Coach’s Eye – Video Analysis” etc.) and “Find Your Flex” highlighting seven apps (“Yoga Down Dog”, “Pocket Yoga”, “Asana Rebel”). Furthermore, it finds supplementary manifestation in the App Assortments of “Wear It While Your Work Out” exalting twelve applications; “Recipes for a Healthy Diet” endorsing thirteen apps, “Get On Your Bike” marketing thirteen programs, “Smart Ways to Train Your Brain” advertising fourteen applications, “Get Fit With Apple Watch” featuring 18 apps as well as “Start An Exercise Plan” promoting twenty apps.

Concerning design, when corporeal regulation applications extend beyond voluminous list-based promotion and into realms of Articles and App of the Day segments, they are inordinately endorsed using eye-catching colour schemes with vibrant split-complementary colours and polychromatic palettes encouraging attention acquisition. Instances of this can be seen in the store’s “Crush Your Bad Habits” Article segment (Figure 10) utilizing the vibrant triadic colours of hot pink-indigo-orange, a tactic that traces its promotional teeth to the fact that such colours lay evenly-spaced on the colour wheel, and thus read optically well to the human eye to process. Vividly, this finds supplemented substantiation in a “Make Fitness Fun” feature seizing user attention via the strategic engagement of the complementary colours aqua and rose laid atop a vibrant neon yellow; in a “Fitness Tips for New Moms” piece utilizing the calm-

inducing Baker-Miller<sup>5</sup> pink backdrop alongside warm reds and black-white shades; as well as in a “Boost Your Energy Levels” segment blending the counter-complimentary colours of blood orange, black, fuchsia, white, and scarlet set atop a canary yellow background – a chaotic colour combination captivating the user by way of ocular dis-harmony now loudly command the eye’s attention.

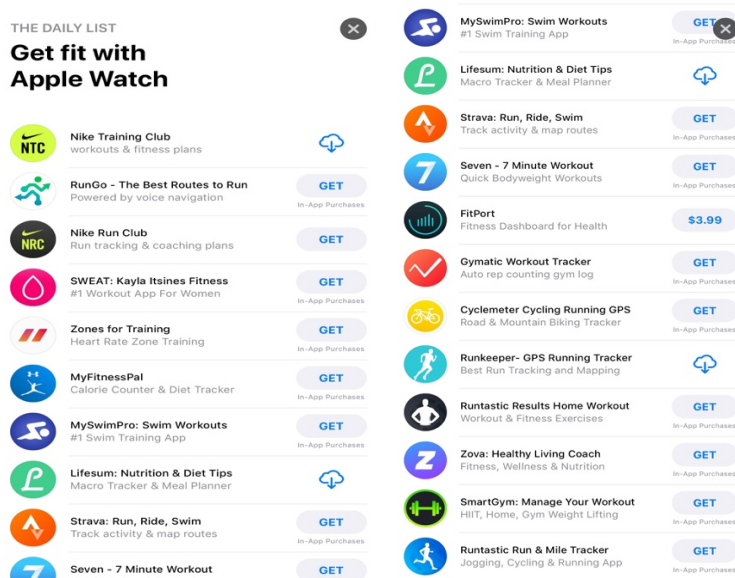


Fig. 8 & 9: Large Quantity of Apps Promoted

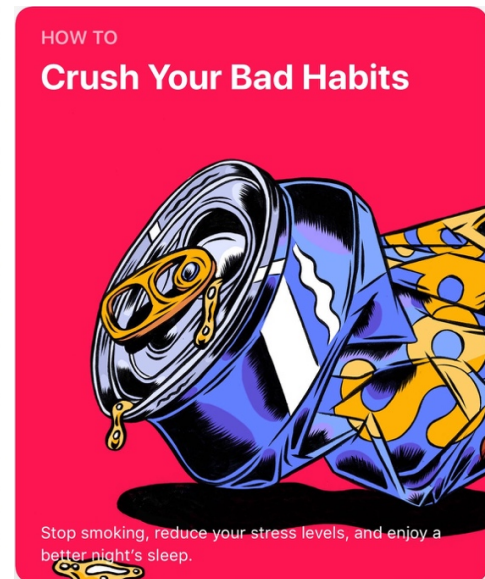


Fig. 10: Striking Colour Scheme

#### Strand 4: Social capital

*Promotional Tactic: Appeals to humanity (empathy/evolutionary traits)*

These applications refer to those which facilitate the cultivation of social capital by providing users with the virtual networks to create and curate meaningful social bonds. Typically residing in the Social Networking or Lifestyle category of the store, these apps are promoted using appeals to humanity via the use of the human face as the chosen architectural tactic

<sup>5</sup> Baker-Miller Pink is a shade of pink that entered into the visual criminological canon in the late 1960s by researcher Alexander Schauss when he investigated how such a colour had psychological and physiological influences on prisoners confined to cells. His findings maintained that this particular hue – when painted along a singular cell wall – decreased hostility, volatility and aggressive behaviour amongst inmates (Gilliam & Unruh, 1988).

nudging users into app selection. Such finds pluralistic visual confirmation in the promotion of the dating app “Happn” focalizing three centered racialized women; in the virtual marketing of the employment-oriented professional networking platform “LinkedIn” seeing the use of a front-facing, suit-donning businessman; in the advertisement of the social-learning application “Sago Mini Friends: Playdates Every Kid Will Love” utilizing frontwards-facing anthropomorphic animals; in the marketing of the location-based, swipe-centric social media application “Tinder” featuring a candidly shot front-facing woman on a beach; as well as in the promotion of a LGBTQ+ dating application “She & Her” featuring the app’s developer foregrounded and front-faced (Figure 11). All, here, harmoniously make use of symmetrical portrait shots emotively drawing the user in. The marketing lucrativeness of facial centralization, again, delineates its justification to the evolutionary safety valves of the primordial human body discussed by Kim (2016), for the human mind is more likely to understand, feel less threatened by, and as well as more emotively inclined to imagery that directly confronts or engages – rather than shies away from – the user’s gaze. Save for photography-centric e-programming, social capital-centric applications were the only promoted material to advertise using the frontwards-facing human face.

Building on that, the human face is also used unconventionally on the store, particularly featured in social capital-facilitating editorials using animated abstract art tinkering with facial symmetry — an inverse eye-catching promotive technique. This finds reflection in the “7 Tips for a Perfect Dating Profile: Tap to read insider secrets from OkCupid” (Figure 12) and “Tame Your Twitter Timeline: Twitterific Puts You in Control” Articles, the “Throw a Fabulous Dinner Party” and “Friends Forever” Daily Lists, as well as in a “Beginners Guide to Dating Apps” App Assortment all witnessing the sketched and animated utilization of an intentionally misaligned,

abstracted visage. The asymmetrical face, here, serves as a purposefully weaponized marketing tactic, as it unorthodoxly preys on the human familiarity with symmetry by provoking conventional aesthetics, urging the eye to spend more time understanding the uncanny human image — potentially, then, resulting in greater user to intrigue and/or engagement with the material (Kim, 2016).

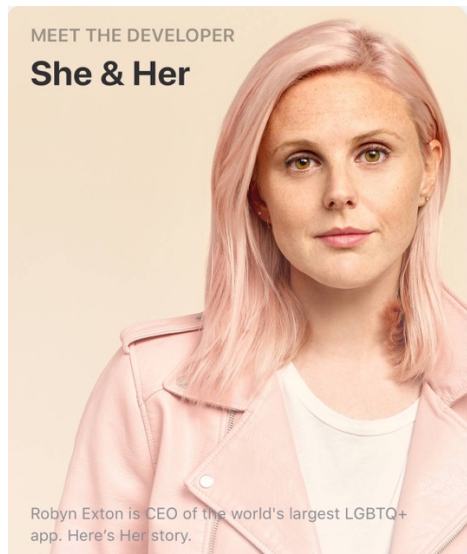


Fig. 11: Front-facing, symmetrical “She & Her”



Fig. 12: Asymmetrical, abstracted visage

### *Non-Self-Optimizing Apps*

#### *Promotional Tactic: Below the Fold vs. Above the Fold (Falling Behind the Wayside)*

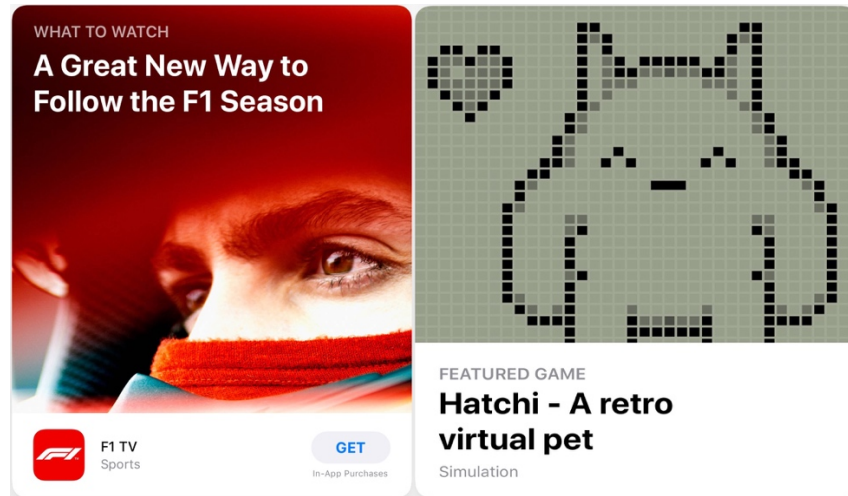
When situated alongside their self-optimization-oriented counterparts, apps that fail to be slotted into one of the four thematic characteristics are subjected to a significantly more subdued and less rigorous brand of marketing — virtually ejected out of the store’s imagination. Such an assertion finds numerical validation in that, on average, only four (4) out of the daily promoted twenty-two (22) segments featured applications outside the realm of self-optimization and inside the un-wide world of miscellanea. Such a number saw itself recede to as low as only two (2) of the promoted segments on three different occasions – April 30, 2019, May 3, 2019 and June 1, 2019— when the number of number of segments promoted totalled an extreme low of twenty.

Regarding, these apps' spatial location within the promotional imagination, such mobile programs were more likely to be situated in the middle of the daily segments — located as virtual afterthoughts as they remain architecturally sandwiched in between the exalted self-care programming of “Headspace” or the self-reliance programming of “MyFitnessPal”.

Moreover, concerning the types of colourations used in their marketing, these applications were more likely to utilize analogous (i.e. similar) or muted hues – an assertion that finds graphic corroboration in a “PokémonGo” App of the Day segment witnessing the presentation of otherwise polychromatic characters in monochromatic uniformity; it finds illustrative validation in a “Fur-ocious Fantasy” advertisement featuring a thoroughly dark brown colour scheme swallowing up and quieting an otherwise detailed image; it finds (non)vivid substantiation in an “Eden Obscura” panel drawing upon of four differing shades of a pastel blue (baby blue, sky blue, celeste, paled turquoise) resulting in each colour being washed out against one another; and finally, it finds pictorial support in a “Crowd Control” advertisement made only out of negative space and a black dot in the centre of a white frame. The endorsement of such non-productive applications both figuratively and literally stand in contrast to the vivid hot pink-hot orange colour schemes afforded to self-optimizing apps.

Moreover, the differing levels of promotive assent delegated to such programs takes most aggressive form in its textual marketing, as the wordings used in the endorsement of such apps are often omitting and/or reductive – devoid of the promotional glow of humorous and captivating one-liners afforded to self-optimization programming. Here, this can be seen manifesting in the endorsement of “The Executive” promoted using a caption reading only the words “Action”; in “F1TV” marketed simply with its category “Sports” (Figure 13); in “Tiny Wings” captioned only with the word “Casual”; in “Furistas Cat Café” advertised solely with a

mimetic super-heading reading of “Furistas Cat Café”; in “Hatch – A retro virtual pet” subtitled just with “Simulation” (Figure 13); as well as in the “Golden Foot Football” endorsed using the sub-par surtitle “Kick it Gold Foot-style”.

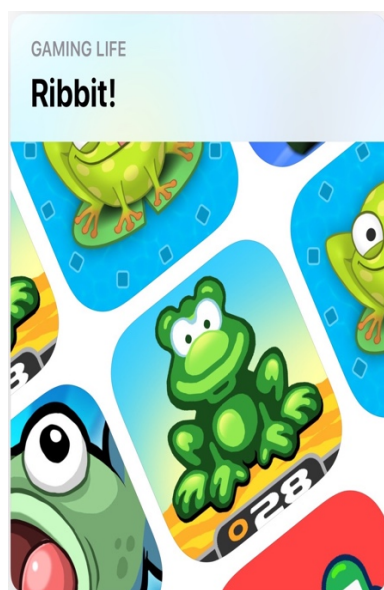


*Fig. 13: Limited, reductive text afforded to non-self-optimization applications*

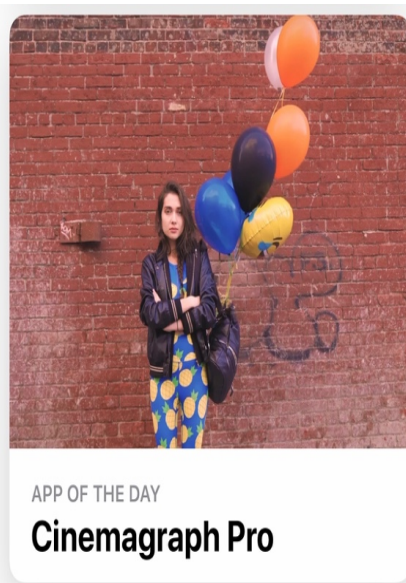
Nonexistent, here, is thus the same promotive vigour cyber-supplied to apps centralizing self-optimization – an energy previously concerned with captivating the mind’s eye by any e-means. In addition to this, it must be noted that compared to their thematic counterparts, text featured within these non-self-optimization apps were more likely to be court— with this finding discursive validation in their brief running Articles, their chastely-titled headings for Lists and App Assortments, as well as their lengthily meager descriptions provided to App of the Day segments. Here, the inordinate use of concise text projected onto mobile programs failing to program self-optimization onto users can be graphically seen in the two-word, repetitive and ambiguous titles promotively afforded to such apps, such as “Ribbit” (Figure 14), “Emoji Charades”, “Cosmo Race”, “Fur-ocious Fantasy”, “Faster...Faster...”, “Aaah, Zombies!”, “Up & Up” “Go! Go!”, “Pipe Dreams” etc. Concerning subpar subheadings, wherein non-self-optimization apps are often devoid of explicative tag-lines providing users with informative

insight into the program, this finds virtual illustration in the App of the Day segments of Boat Racers, Cinemagraph Pro (Figure 15), Questland, Bonza Jigsaw and SeaNav – all of which were packaged and presented to the Apple user devoid of a subheading tagline.

Below, a language learning Article (Figure 16) successfully orbiting around the exalted self-optimizing behaviour of self-reliance is deliberately placed alongside its non-optimization counterpart for graphic comparison – visually speaking to the differing textual lengths (see: a longer and almost alliterative title), starkly different colour gamuts (see: bright complimentary colours used in the latter), and an overall incomparable level of discursive effort (see: a heading invoking identity and an enticing subheading probing users to engage further by tapping to “learn more”) allotted to applications technographing idealized behaviours.



*Fig. 14: Ambiguous titles*



*Fig. 15: Absent subheadings*



*Fig. 16: Self-optimization app ex.*

## DISCUSSION

Serving as a theoretical springboard to this paper, it is here where Stanfill's (2015) interface-as-discourse framework springs into analytical action —recall, briefly now, that her theory is one that imagines interfaces non-neutral entities charged with narratives (ideologies,



ideals, desires etc.) that are discursively communicated onto users via what gets spatially, graphically, textually and architecturally exalted. Such a reading of interfaces as coded entities encoded with particular discourses can be seen virtually realized herein on the Apple App Store, as the platform's curated Today section purposefully promotes self-optimizing applications at the dwarfed expense of play-centric and/or miscellaneous others. Communicated, here, – amidst the graphically-alluring colours afforded to self-management-centric apps, the e-motional use of fluctuating text in App of the Day segments (e.g. LoseIt, Reflecty) and the relinquishing of 32-bit gaming applications— is the discursive narrative that not only are there particular applications Apple users should be downloading, but there exists certain behaviours that these consumers should be cognitively installing.

Much like Stanfill's (2015) work discovering that sporting and sci-fi franchise websites strategically communicate narratives of what proper fan-hood entails, findings herein reveal that iPhone users navigating the App Store are made to orbit around the idealized behaviour of self-optimization— technographed through the host of ocularly-enticing, (human) evolution-attentive and textually-seductive tactics afforded exclusively to applications promoting self-reliance, self-improvement, corporeal management, and/or social capital. Here, virtually broadcasted by way of an interface exalting "OkCupid", "Breathe: Sleep & Meditation", "Sworkit Fitness & Workouts App" or "WoeBot: Your Self Care Expert" is that a proper Apple user is one who is both concerned with and capable of self-optimization — an individual who is incessantly engaged in a pursuit of exceptionality, attempting to become both a jack of all trades as well as a master of each and every one. Such a quest is propped up and facilitated by an App Store architecturally ushering users toward self-improvement applications maximizing one's functionality and capacity, as they are encouraged via this interface to download (read: take on)



pluralistic, self-sufficient roles of being one's own interim matchmaker turned-sleep hygienist-turned-personal trainer-turned cognitive-behavioural therapist.

Now, in working to make sense of why the ideologic narrative of self-optimization is discursively mapped onto the App Store's interface, it is crucial to situate the store within its temporal, geopolitical, socioeconomic context – a requisite task that Stanfill (2015) demands of all engaging with her interface-as-discourse framework. Though seeming to exist only within the confines of an iPhone, this marketplace is dually operating within a Western turbo-capitalist, free-market neoliberal milieu whereby the need to be accountable to and for the self — to be self-reliant, self-improving, self-determining, self-indulging yet self-policing, self-caring, self-assured, self-aware, self-organizing, self-activating etc. — provides the overarching and underpinning philosophical rhetoric to this socioeconomic climate. It is thus seemingly sensible for such a marketplace to mimetically model itself off of the neoliberal laissez-faire economic structure from which it is immersed, one wherein citizens are primed toward performing the lucrative idealized identity of neoliberal subject-hood— i.e. an upwardly mobile, competitive, ruggedly individualistic (e-)individual who is pro-conforming, pro-consuming, self-caring, is not suspect in their ability to consume, nor are they dependent upon the state. Given this contouring cultural-financial milieu, it appears practical for Apple to operate in tandem with – in lieu of going against the grain of – such a culturally potent, economically lucrative rhetoric and ideology. The store, thus, can be read as functionally adapting to the conditions of its ideological climate – responding practically in it virtually nudging users toward the invisible hand on its e-bazaar providing the apparatuses (read: app-aratuses) to perform a self-optimizing, neoliberal subjectivity.

Building on this further, it could be argued that Apple – a profit-centric enterprise – has a vested interest in promoting self-optimization apps ascending users into neoliberal subject-hood,

for in technographing that a proper Apple user is ever engaged in a journey toward self-optimization lies a degree of ontological security. Such an assertion, that promoting self-improvement programming serves a potentially protective duty for the company, finds substantiation in the reality that the more a user is able to successfully orbit around the rhetoric of self-optimization and self-sufficiency – a process that is ideally aided and abetted by an app marketplace rife with “Smart Ways to Train Your Brain” assortments providing cognitive enhancement apps and “Nail Your Next Job Interview” Articles increasing one’s competitiveness in the market — the more upwardly mobile they may prospectively be. Furthermore, the more upwardly mobile one may be, the greater access they will likely have to income that can be redirected back into Apple and its interfaces. Ultimately, nestled in the extensive and excessive promotion of self-optimizing apps akin to “Clean Eating Plan and Recipes” and “Lifesum: Nutrition & Diet Tips” promotively filed under a “Healthy Can be Tasty” List, Apple can be herein read as using their virtual marketplace to amplify a user’s performance in the market in the self-centric, synchronic pursuit of securing their own fiscal success.

### *Self-Optimization meets Auto-Exploitation*

Whilst virtual culpability has been momentarily suspended in an effort to situate the App Store within its socioeconomic ecosystem – again, a Stanfill (2015) requisite – it is important to reconvene now to shine light on the fact that this ethic of self-optimization discursively empowered by the platform is intensifying a novel form of exploitative power that is swelling within neoliberal societies: that of auto-exploitation. Such a novel type of power is spoken to uniquely by Byung-Chul Han (2010) in “The Burnout Society”, a short text which sees him raise the contention that present-day neoliberal capitalist societies have become “achievement societies” – milieus concerned no longer with top-down “disciplining” individuals, but rather

with bottom-up “achieving”. Citizens, here, are recalibrated from “obedience-subjects” to “achievement-subjects”, imagined now as “entrepreneurs of themselves” motivated by an onwards-and-upwards ethic of acquiring more and cultivating their curriculum vitae (lit: life course). Visually, this newfound fixation on achievement takes shape in an enhanced fixation on upgrading the self and an increased preoccupation with “work, exercise, sport, or study as competitively as possible” so as to “achiev[e] the most or highest honours, credentials, or recognitions as possible”. On this, Han (2010) elaborates, explaining:

“The achievement-subject stands free from external instances of domination forcing it to work and exploiting it. It is subject to no one if not to itself. However, the absence of external domination does not abolish the structure of compulsion. It makes freedom and compulsion coincide. The achievement-subject gives itself over to freestanding compulsion in order to maximize performance. In this way, it exploits itself. Auto-exploitation is more efficient than allo-exploitation [other's exploiting you] because a deceptive feeling of freedom accompanies it. The exploiter is simultaneously the exploited. Exploitation now occurs without domination. That is what makes self-exploitation so efficient.”

It is this notion of self-exploitation that makes achievement societies so exceptionally insidious for the theorist (2010), as the self within these milieus is conceptualized as an endless “work-in-progress” (p. 11). In “The Burnout Society”, such a socio-cultural trend toward achievement by-any-means necessary is herein located as a self-destructive endeavour leading to Han’s (2010) titular allusion: a society of burnout.

Han’s (2010) notion of achievement societies and auto-exploitation maps perfectly onto both the self-selecting Apple App Store and Stanfill’s (2015) framework reading interfaces as hyper-textual entities rife with sub-textual narratives, for the user is herein inundated with

personalized, brightly-coloured, carefully placed, emotionally-calculated, achievement-centric Articles, Lists, and App Assortments discursively communicating that the self is an enterprise to be constantly tinkered with and auto-tuned toward a harder, better, faster, stronger achievement. Provided, here, is a one-stop-virtual-shop inviting and inciting into this project of self-improvement – an assertion that finds quick virtual validation in the store’s thematically harmonious, advancement-oriented segments titled “Keep Your Health Kick Going”, “Build Your Skills and Grow Your Career”, “Get Fit When You’re Time Poor” and – quite candidly – “Level Up Your Life”.

While it might be unsettling that users open themselves up to being indoctrinated into narratives of achievement and self-improvement when they so much as open the App Store, the real alarm lies in the temporal elasticity of these narratives – the fact that, as hinted at by Han (2010), working on the self is an endeavour that is endless, constant, and for always (pp. 9-11). Here, this “work-in-progress” self finds itself facilitated by a perpetually accessible online marketplace promoting self-improvement programming for every occasion – whether that take the time-specific image of “Show Mornings Whose Boss”, “What’s for Lunch?” and “Early to Bed, Early to Rise” App Assortment segments respectively filled with regimented yoga apps seeking to boost daily productivity, health-conscious micro-macro nutrients counters, as well as sleep-monitoring apps promising to optimize a user’s sleep hygiene. Operating alongside this is the host of temporally-flexible curated lists discursively narrating the self as an inherently ceaseless endeavour – technographed, here, in the limitless and self-explanatory titular segments of “Healthy Habits from Morning till Night”, “Self-Care from Dusk to Dawn”, and “There’s Always Time to Make You Better”.

It is important to note that while this may read as theoretical gymnastics – moving from Stanfill (2015) to Han (2010) – this in fact remains a very calculated decision to join two

pioneering and generative frameworks in intertextual harmony, as they build upon one another and compensate for each other's analytical gaps in the style of a scholarly phrasal word template (i.e. MadLibs). Their theoretical symbiosis lies in the fact that, for Han (2010), technology is one of the avenues through which rhetoric(s) of achievement are top-down imposed onto individuals, as well as is a major means through which people bottom-up self-exploit (see: mindfulness apps, self-tracking devices etc.). The actual manner in which this ideology (achievement) is technologically downloaded onto users, though, remains vague and conceptually absent from Han's (2010) immunology-centric work— a gap that is remedied by Stanfill's (2015) interface-as-discourse framework showcasing precisely how (optically, textually, texturally, emotively) ideologies such as neoliberalism's achievement-over-everything ethic can be and are dually encoded into interfaces and users as they engage with them. In return, Han (2010) – who is writing from a macro standpoint in contrast to Stanfill's (2015) micro lens – can be imagined as fortifying the digital theorist by accelerating the stakes that lay in the interface-discourse nexus, highlighting how these technographed ideologies extend beyond the seemingly benign endeavours of communicating what proper Star Wars fan-hood looks like and how they tread into the malignant waters of discursively broadcasting what proper subjectivity entails. Proverbially, Stanfill's (2015) "interface-as-discourse" instrumentally provides theoretical binoculars drawing attention to what is transpiring virtually, whilst Han's (2010) "achievement societies" maintains the theoretical wherewithal to peer into the telescope, make analytical sense of these occurrences, as well as the urgency that lies therein.

#### CONCLUDING REMARKS: AGENCY VS. STRUCTURE AND FUTURE RESEARCH

Ultimately, these discussions concerning the App Store and the auto-exploitative act of self-optimization complicates sociology's agency versus structure debate, as the agentic act that is app downloading is occurring on a marketplace imbued and infused with the structural

ideologies of neoliberalism – refusing to slot neatly into one of the binary camps of agency or structure. The reality is, while the *institution* (structure) of the Apple marketplace discursively sustains the socioeconomically dominant neoliberal ethic of self-optimization (by way of what programming it spatially, graphically, textually and optically exalts as well as technographs onto users what constitutes a proper Apple consumer), the user always maintains the *autonomy* (agency) to cease engaging with the store — to close the App Store and/or completely by-pass the Today section for as long as they see fit. Even though the App Store is one of the only eight applications that cannot be deleted off of the iPhone, the user is never compelled to engage with the platform, as the device is designed to function effectively with or without the use of third-party applications. Here, the user is endowed with the agency to decouple themselves from the nudging invisible hand by backing away from it or leaning into it. Despite not being physically strong armed into downloading such neoliberal ideologies – much like Ecott’s (2017) discussion on FaceID surrendered in the *Literature Review* – it is paradoxically in one’s best interest to download such apps and ideologies and gravitate toward the invisible hand, for success (read: survival) within achievement-oriented societies is contingent upon one’s ability to bend to the snapping demands of capital. Given this, then, the seemingly autonomous platform contoured by a structure of neoliberalism fails to map tidily onto the discipline’s seminal dispute; here, agency meets structure – available on the Apple App Store.

At the core of this paper was an attempt to underscore the pressing relationship between interface and discourse, showcasing how a taken-for-granted interface akin to the Apple App Store’s Today section is discursively shot through with ideologies of neoliberalism, ideals of self-optimization, narratives of subject-hood and desires of achievement technographed onto users as they navigate the platform. I now champion other virtual sociologists and scholars alike

to produce more work critically investigating the App Store, as it continues to be an entity that is not only unchallenged but presumed harmless – perhaps owing to its cultural spoofing and imagination as a play-centric platform (see: its respective parodies on “Sesame Street” and “My Little Pony”). Potential starting points include scholars examining what narratives/iDeologies are technographed onto the iPad and MacBook app store’s interface, or perhaps on any future iOS beyond the 11 editions. It would also be generative if other scholars could fill the theoretical gap surrendered earlier (in *Methodology*) regarding the examination of other application stores beyond the Apple imagination, such as the Google Play Store or F-Droid. Other prospective research projects could entail scholars attending to the paradoxical yet intriguing fact that the App Store can be simultaneously read as both a venomous facilitator of, as well as a virtual antidote, to the destructive behaviours and sentiments of self-exploitation and burnout. Whilst this paper has showcased at length how the store facilitates the auto-exploitative endeavour of self-optimization, one may analyze how a pool of wellness and meditation-centric applications akin to “Stop Breathe and Think” apps and mindfulness editorials entitled “Feeling burnout? Use these apps to give your mind the attention it deserves” are herein offered up as e-tools (read: apparatuses) providing momentary respite from the project of self-optimization. It would thus be intriguing for a scholar (or scholars) to produce work investigating how the store rife with a plaguing ideology comes complete with its own virtual remedy. Theorists across canons are urged to examine these underpinning incongruent, enigmatic and competing attributes of the App Store, and are simultaneously encouraged to continue this overarching this paper’s unwaveringly attention to the interface-discourse nexus — equipped, now, with two novel neologisms to help facilitate such an endeavour.

## ETHICAL CONSIDERATIONS

This paper is devoid of any ethical implications, for its engagement with interfaces in lieu of individuals situates it as not needing to obtain ethics clearance from the Canadian Research Ethics Board (REB).

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