Endowed, Entrepreneurial, and Empowered-Strivers: Doing a lot with a lot, doing a lot with a little

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Based on original data from one-on-one and focus group interviews with high school students in California, this article reveals how consistent access to or deprivation from informational resources influences information synthesis for scholastic work. In order to hold motivation constant, the article delineates three kinds of Striver students: Endowed, Entrepreneurial, and Empowered. The article examines the ways in which Strivers obtain information relevant to schoolwork from digital media, non-digital media, and knowledgeable individuals. Findings reveal linkages between access to informational resources and the internalization of a self-reliant or other-reliant stance towards information synthesis. Endowed-Strivers who enjoy synergistic access to informational resources adopt a self-reliant information habitus. By contrast, Entrepreneurial-Strivers with few home resources engage in linear strategies that facilitate an other-reliant information habitus. The third group, the Empowered-Strivers, benefits from school-based interventions that give them multiple information channels. Such IT interventions can act as substitutes for the rich informational resources enjoyed by Endowed-Strivers at home. Access to IT resources and teacher modeling at school make it possible for Empowered-Strivers to develop a self-reliant information habitus with regard to schoolwork. In showing how a favorable school-based information opportunity structure can compensate for inadequate informational resources at home, the analysis reveals the ways in which informational inequality is both created and sometimes overcome. By illuminating the relationships between access conditions, information opportunity structures, and types of information habitus, the article shows how synergistic use of informational resources plays a critical role in larger digital inequalities.

Keywords: digital inequality; striver; information capital; habitus; information habitus; Bourdieu

Introduction

The research examines how American high school students' ongoing access to or deprivation from informational resources influences the way they synthesize information for scholastic work. Drawing on a Bourdieuian framework, the findings reveal linkages between normative access to informational resources and the internalization of a self-reliant or other-reliant information habitus for information synthesis (Bourdieu, 1980).

The study is based on focus groups and interviews with Californian high school students. To differentiate between differently situated but similarly motivated students, the examination distinguishes three types of highly motivated 'Striver' students: Endowed, Entrepreneurial, and

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Empowered. Strivers are defined as students who: take the initiative to find needed informational resources to meet educational goals, enroll in at least one college preparatory course, and plan to attend college after high school graduation. However, Strivers have access to different 'information opportunity structures' (Robinson, 2011) or engagements with different kinds of informational resources.

The inquiry looks at how Strivers' normative access to informational resources informs information synthesis. Endowed-Strivers with favorable information opportunity structures develop a self-reliant 'information habitus' (Robinson, 2009). Entrepreneurial-Strivers, confronting an unfavorable information opportunity structure, adopt an other-reliant information habitus. Empowered-Strivers benefit from school-based interventions that substitute for the rich information opportunity structures enjoyed by better-resourced peers. Access to school resources and teacher modeling make it possible for Empowered-Strivers to develop a self-reliant information habitus for schoolwork.

Findings reveal the ways in which informational inequalities are both generated and mitigated by drawing connections between information opportunity structures and types of information habitus. Analysis shows how: (1) a school-based information opportunity structure can, under certain conditions, act as a proxy for informational resources at home; (2) synergistic use of informational resources is related to the information habitus; and (3) information synthesis and skill modeling are related to digital inequalities. Examining these interrelationships, the article closes by revisiting the concept of information capital in light of Bourdieu's early work with Passeron (1990) regarding the ways in which school and home socialization relate to class reproduction.

Theoretical and conceptual foundations

Scholars have turned to Bourdieuian frameworks to make sense of IT as a resource influencing social reproduction. A number of digital inequality studies employ the concept of 'information capital' (Hamelink, 2001). Van Dijk's (2005) comprehensive definition of information capital encompasses financial resources to pay for computers and networks, technical skills, evaluation abilities, information searching motivation, and the capacity for implementation (pp. 72–73). Using one or more of these four dimensions, scholars have established explicit linkages between technology and cultural capital, especially when technology is used for capital-enhancing activities (DiMaggio & Bonikowski, 2008). Such studies have shown how the same kinds of informational engagements yield different payoffs for more- and less-disadvantaged groups. Witte and Mannon (2010) use representative survey data to show that inequalities in IT access and internet usage both augment and mirror inequalities in offline resources such as economic and cultural capital. Kvasny (2005) examines how perceptions of IT differ according to socio-demographic background benefitting some groups more than others.

Also drawing on Bourdieu's concept of the habitus, the concept of 'information opportunity structures' (Robinson, 2011) captures the range, diversity, and richness of various kinds of information sources available to differently situated students. Examining information opportunity structures reveals how individuals acquire particular strategies and orientations towards appropriating information. The related notion of the habitus (Bourdieu, 1980) also anchors empirical work on information appropriation for human capital-enhancing purposes (Kvasny, 2006). Through the analytical lens of the information habitus (Robinson, 2009) we see how some internet users internalize an exploratory stance towards new media use, while others adopt a more task-oriented stance. Students with fewer resources develop a 'taste for the necessary' while their better-endowed counterparts enjoy the kind of leisure or 'skholè' that ultimately serves them well in the development of internet-related abilities they need to excel scholastically. The

information habitus allows us to uncover how students use IT-based informational resources and demonstrates how informational orientations are internalized by those with more- and less-constrained access to resources.

Building on these concepts, the present inquiry shows how more- and less-constrained access conditions lead to different orientations to information appropriation and synthesis, as well as content creation ultimately. Empirical studies dealing with links between educational outcomes and information appropriation through new media channels have established that new media can, under certain conditions, enhance students' skill building at school (Livingstone, 2009; Cotten et al., 2011). Schofield and Davidson (2003) argue that the use of new media for school communication improves student-teacher relationships in urban schools serving students of all age groups. In their study of younger students, Huang and Russell (2006) find a positive association between computer accessibility and test scores. Thiessen and Looker (2007) find that 15-year-olds with higher levels of IT for education show improved achievement scores. Young teens' intensive usage of certain educational software packages is correlated with higher grades (Lei & Zhao, 2007).

However, other studies show that excessive new media use, especially for non-academic purposes, can harm students' academic performance. Lei and Zhao (2007) also find a threshold effect for exposure intensity: more than three hours daily harms scholastic performance. While some new media engagements indirectly enhance academic performance through skill building, others consume time without conferring benefits. Excessive recreational use reduces energy for schoolwork, thereby impairing students' scholastic performance (Mesch & Talmud, 2010). Given that excessive new media use for non-academic purposes can be detrimental to student success, the use of new media by students for academic work may be viewed as a capital-enhancing activity.

Research has also examined students' new media use for capital-enhancing activities. Fuchs and Woessmann (2004) find that disadvantaged students are more likely to use new media for entertainment purposes than their more advantaged counterparts. Students with better IT skills are more adept at ascertaining trustworthy information online than students with poorer skills (Fidel et al., 1999; Hargittai et al., 2010). Information synthesis strategies displayed by more-skilled and less-skilled students are critical because using new media for capital-enhancing activities has vastly different implications for the development of skills, and, ultimately, the various life outcomes associated with long-term usage (Peter & Valkenburg, 2006; Mesch & Talmud, 2010).

While these studies have illuminated connections between different forms of new media usage and scholastic performance, they do not tell us how different kinds of students incorporate new media into their scholastic information appropriation practices. Most importantly, they do not address how information opportunity structures affect how students assimilate and synthesize information germane to their schoolwork. By beginning to fill these gaps, this study makes contributions to the larger body of knowledge on digital inequalities.

Present inquiry and analytic strategy

The Bourdieuian framework proves particularly useful when studying students' information appropriation and synthesis practices for scholastic achievement. This analysis takes advantage of several concepts from previous studies, many taking their cue from Bourdieu's seminal work on social reproduction: information opportunity structure, information habitus, and information capital. This study employs these concepts to analyze scholarly information appropriation and synthesis by highly motivated Strivers. By singling out Strivers, this article reveals the complex relationship between information opportunity structures, information capital, and different forms of information habitus. Most previous studies do not differentiate between motivated

and unmotivated individuals (van Dijk, 2006), obscuring the causal connections that this article uncovers.

The concept information opportunity structure is used to encompass all informational resources key to information synthesis for scholarly work available to each of the Striver types. The concept information habitus is deployed to explore how each kind of information opportunity structure facilitates internalization of self-reliant or other-reliant stances towards information synthesis. To do so, the inquiry explores the relationship between the kind of information habitus internalized for scholastic work and the costs of accessing non-digital informational resources in addition to new media. The study traces the self-reliant information synthesis habitus to its roots in rich home and school information opportunity structures comprised of new media, non-digital media, and knowledgeable individuals who model behaviors central to information synthesis.

Bringing these concepts together with the data, I show how Strivers encounter different information opportunity structures that facilitate the development of a related information habitus. The data reveal three kinds of Strivers who have varied access to informational resources: Endowed, Entrepreneurial, and Empowered. Endowed-Strivers enjoy information opportunity structures at home that enrich their scholastic work by fostering a self-reliant information habitus that synergistically engages in information synthesis. By contrast, Entrepreneurial-Strivers experience chronic informational resource deprivation; their information opportunity structures are far from home and carry heavy costs inducing an information habitus that is other-reliant and linear. Empowered-Strivers, like Entrepreneurial-Strivers, lack rich home information opportunity structures. However, Empowered-Strivers adopt a self-reliant information habitus thanks to a combination of school resource interventions that act as proxies for the rich home information opportunity structures enjoyed by Endowed-Strivers.

Data and methods

The data are drawn from a larger longitudinal, multi-method analysis of digital inequality relying on one-on-one interviews, focus group interviews, surveys, and ethnographic observation. The data analyzed in this study come from structured one-on-one and focus group interviews in which all students answered the same battery of carefully crafted questions. The interviews were conducted with high school seniors in agricultural California. The respondent pool is ethnically and economically diverse, including African American, Asian American, Filipino American, Native American, Latino/Hispanic, and White. While some students come from more economically advantaged households, the school also meets the '35 per cent rule' to be classified by California as a 'Title I' or high-poverty school. This economic diversity allows for the comparison of more- and less-economically disadvantaged students. This said, drawing from a single case study provides rich analytic description of understudied phenomena rather than generalizations to larger populations.

In this article, data collected in 2010 and 2011 is included in the analysis. During this period, interviews and focus groups were conducted with 319 seniors enrolled in English classes. Data collection was administered through the English Department because all respondents must take four years of English courses. This strategy ensured that the interviews would reflect the full diversity of patterns evident across the data set while holding grade level constant. There was no selection process including or excluding some students from taking part in the study. All seniors in regular and advanced twelfth grade English Department classes were invited to participate. Although given the option to opt out, no student chose to do so. The school was detracked in the 1990s allowing regular students to enroll in college-preparatory, honors, or advanced placement (AP) courses that prepare students to take exams to earn college credit.

The current analysis focuses on a subset of Striver students whose normative environment is unlike schools with a majority of economically advantaged students who expect to attend four-year institutions as a rite of passage. For Strivers in this large public school, attending a four-year college immediately after graduation is an achievement. Of the 319 students interviewed, 134 met the criteria defining Strivers who (1) proactively find needed informational resources to meet educational goals, (2) enroll in at least one college preparatory, honors, or AP class in high school, and 3) plan to attend college after high school graduation. Of the 319 students, 134 students met the criteria, and 185 did not. The 185 non-Striver students were excluded from the analysis, leaving 134 Striver-respondents. Strivers are motivated students maintaining scholastic excellence needed for college admission. Singling out Strivers from a larger population including many disadvantaged students holds motivation constant and illuminates the effects of different information opportunity structures and access conditions on the information habitus.

The focus groups and interviews were conducted during the normal school day on the school grounds. All participants were asked the same questions. Every interviewee was given the opportunity to answer every question. Questions covered topics including:

(1) Quality, frequency, and duration of access to/use of informational resources at home, school, and third places:
   - Handheld devices/cell phones
   - Computers/laptops
   - Internet/digital resources
   - Non-digital media (TV/radio/recorded media/print media)
(2) Quality, frequency, and duration of access to/use of people as informational resources at home, school, and third places:
   - Family members
   - Educators
   - Peers/classmates
(3) Information appropriation and information synthesis practices using all above informational resources at home, school, and third places
(4) Education:
   - Skill learning
   - IT/academic classes
   - Educational/professional aspirations
(5) Resources:
   - Time allocations
   - Temporal and transportation resources

Data were analyzed using a grounded approach ideal for emergent and understudied phenomena such as new media usage (McMillan & Morrison, 2006). Data from focus groups and interviews allow the researcher to ascertain topics resonating with respondents by creating opportunities for respondents to talk about concerns animating their lives (Luker, 2009).

Primary analytic categories (*Striver, Endowed-Strivers, Entrepreneurial-Strivers, and Empowered-Strivers*) emerged from the data. Coding the data, I used an iterative process relying on multiple rounds of open coding, recoding, and focused coding. In open coding, informational resources were coded in three main categories: digital resources (laptops, computers, high-speed internet connections), non-digital media (television, radio, recorded media, print media), and knowledgeable individuals (parents, siblings, educators, peers). Coding for information appropriation practices explored use of informational resources in the home, school, and third places. Coding for information synthesis uncovered synergistic and linear use of

informational resources. Coding for skill learning revealed opportunities in the home, school, and third places.

Coding also brought to light interrelations between access to informational resources and configurations of information appropriation. The coding elicited linkages between practices of information synthesis, conditions of access to resources, and tactics to acquire needed resources. Through open coding, I identified clusters of educational paths at school, educational goals, and strategies used by students to obtain informational resources outside of the home. These coding operations allowed me to identify the different types of Strivers. This coding also revealed self-reliant and other-reliant stances towards information synthesis and information production. Equipped with these emergent analytic categories, I noted connections between respondents' information synthesis practices and informational resources open to them as I continued to code the data.

Inductively coding, I confirmed these patterns. Subsequently, I developed targeted codes with which I recoded the data. Focused coding verified and confirmed these patterns. With this iterative process, I developed generalizations, which I confirmed by multiple rounds of code-and-recode. While not testing hypotheses regarding cause-effect relationships among pre-specified factors, moving back-and-forth between data and coding ensured that the analytic categories were grounded in the dataset, thus providing an excellent foundation for 'discovery-oriented' (Luker, 2009) analysis.

Analysis: Overview

Each of the three sections of analysis is devoted to one of the groups of Strivers: Endowed-Strivers, Entrepreneurial-Strivers, and Empowered-Strivers. Findings detail how each type of Striver has access to different information opportunity structures comprised of new media, non-digital media, and knowledgeable individuals (Table 1). Findings also show how each group of Strivers adopts a self-reliant information habitus or an other-reliant information habitus. The first section examines how Endowed-Strivers benefit from rich information opportunity structures available on demand 24/7, as well as how Endowed-Striving inculcates self-reliant information synthesis. The second section illuminates Entrepreneurial-Strivers' lean information opportunity structures that necessitate effort-intense, linear strategies to obtain basic access to informational resources. This section shows how constant resource shortages lead to the internalization of an other-reliant information habitus for information synthesis. The third section analyzes how Empowered-Strivers' access to school information opportunity structures enables them to internalize an integrative and self-reliant information habitus thanks to more consistent access to informational resources and educator modeling of synergistic information synthesis.

Table 1.   Striver overview

Strivers	Costs to access resources	Information opportunity structure	Information habitus
Endowed	Low: available at home	Diverse and abundant	Synergistic, exploratory, self-reliant
Entrepreneurial	High: limited availability at school and public venues	Scarce and homogeneous	Linear, task-oriented, other-reliant
Empowered	Moderate: available in IT courses	Diverse at school	Synergistic, task-oriented, self-reliant

Section I: Endowed-striving: 24/7 synergy

Endowed-Striving is made possible by a highly favorable information opportunity structure in which informational resources are consistently accessible. In looking for information relevant to their schoolwork, Endowed-Strivers enjoy access to an abundance of IT-mediated sources of information, non-digital media, and knowledgeable family members. For Endowed-Strivers, information appropriation is relatively costless. Unlike Entrepreneurial-Strivers, Endowed-Strivers secure information from multiple information channels without expending effort. Continuous access to informational resources facilitates a self-reliant information habitus in which Endowed-Strivers synergistically appropriate, synthesize, and produce information.

Endowed-Strivers live in worlds where digital resources are consistently accessible thanks to wired households with high-speed internet or wireless connections and high-quality personal laptops or computers: 'I can use the internet whenever I want'.[1] Endowed-Strivers elaborate: 'My parents bought me my own laptop when I began high school … important for me to do my schoolwork' and 'I have wireless pretty much everywhere in the house'. Endowed-Strivers do not have to exert themselves to obtain access to IT-mediated resources. They can take advantage of digital informational resources without incurring costs paid by Entrepreneurial-Strivers to appropriate information.

Endowed-Strivers experience digitally mediated information as available at any time, alleviating the need to husband or sequence use of resources. When Endowed-Strivers need to save information for future use, they have multiple options: 'I save to a thumb drive', 'Often I'll email myself text that I want to access on other computers', 'I favorite the sites' and 'Sometimes I will cut and paste it onto an email and send it to myself. Sometimes I will use a USB drive as well'. Information on demand is facilitated by smart phones with plentiful data packages: 'Can just look it up on my phone'. Endowed-Striving enables the use of multiple digital devices concurrently with one another for both schoolwork and pleasure: 'I text all the time … surfing the web and texting at the same time … '.

Endowed-Striving also results from consumption of non-digital media. Endowed-Strivers' homes provide bounties of non-digital media that they may access at will. Most of their families have newspaper and magazine subscriptions: 'My dad lets me use his airline miles to get magazines'. Books are prevalent; encyclopedias are not uncommon. When local bookstores close, Endowed-Strivers' parents drive them to bookstores 45 minutes away: 'My mom takes us to Barnes and Noble in San Elmo'. Endowed-Strivers enjoy cable packages that include more edifying options such as the History Channel. Having an information-rich environment encourages Endowed-Strivers to be avid information consumers without heavy costs of procuring information.

Endowed-Strivers also use digital resources to maximize the breadth of informational resources at their disposal. Although the bookstores in the mall have closed, Endowed-Strivers still buy books online: 'I like to read … love Amazon' and 'Get it in Googlebooks for free'. They also supplement print materials from the school with digital resources: 'I can get help on Hotmath'. As there are no longer video rental stores in town, the web allows them to take advantage of their families' Netflix accounts where they 'can order DVDs when I want'. Access to multiple resources translates into autonomy: 'I like paper books but I have an e-reader too … if I need a book fast my mom will download it for me'. With this panoply of continuously available digital and non-digital informational resources, Endowed-Strivers consume information in a synergistic fashion.

Capitalizing on a diverse and rich information opportunity structure in the offline realm, Endowed-Strivers' immersion in informational resources has multiplicative benefits that inform online practices. Like a solid foundation on which to build a sturdy structure, synergy between

multiple sources of information provides the cornerstone for informed information appropriation. One Endowed-Striver explains: 'I liked watching Dogfights [on the History Channel] … felt like I knew a little bit when lookin' on the web for homework'. Another adds how reading books enhances his online forays: ' … had an idea of key words … had read about it'. Endowed-Strivers easily draw on background knowledge from non-digital media to enrich the ways they find and synthesize information on the internet.

Just as Endowed-Strivers integrate information from both new and non-digital media, they rely on knowledgeable family members to provide expertise and instruction when needed: 'If I need help I can ask my mom'. In addition to using multiple media simultaneously, they also draw information from various individuals: 'I use people as a resource whether it's my classmates or my family members' and 'I go online, work with classmates, teachers, tutors, or ask a family member'. In Endowed-Striving, family members, peers, and educators are complementary informational resources that work in sync with multimedia.

Consistent quality access to multiple informational resources impacts Endowed-Strivers' information appropriation and synthesis. Endowed-Strivers' typical information appropriation relies on informational multitasking: performing searches on the internet, chatting with a parent or sibling, texting friends, using textbooks and print materials, and checking in with classmates on a social networking site. Endowed-Strivers direct their own searches and experience substantial self-efficacy both in finding information and evaluating its credibility: 'I usually open up several sites that come up on the search. If several of them say pretty much the same thing, I believe chances are they are trustworthy. Also, the site itself tells a lot about the quality of its info'. While Endowed-Strivers may use varied information sources in their initial information searches, they strategically distinguish between sources worthy of attribution and those that may only be used in stealth mode such as Wikipedia: 'I might look at it but I sure won't quote it' and 'If it's somewhere from Encarta, then it's good, but if it's somewhere like Wikipedia, I try avoiding it'. Thanks to their familiarity with the cornucopia of resources available to them, Endowed-Strivers are secure in their abilities to synthesize information from several sources: 'To make sure the information on the internet is correct and trustworthy, I pull up several different sites to compare the information and I look at the authors and the information about who created the site'. Constantly exposed to multiple sources of information in parallel, Endowed-Strivers adopt a strategy of synergistic constant comparison in which they cross reference sources and appraise them to ensure accuracy.

This synergistic process serves them well with scholastic work and prompts them to take on the role of information producer. Several Endowed-Strivers create digital content when they notice something 'wrong' on Wikipedia: 'Well one link leads to another and so I find myself on Wikipedia … and the information wasn't right … so I checked it with other sites … making sure I was right … and fixed it'. Another has also dabbled in Wikipedia, sometimes ' … correcting small things like grammar'. Endowed-Strivers offer examples of other digital media creation connected to schoolwork. One shares, 'We did these really cool podcasts for Mrs. M's class'. Another tells, 'For English my group did this neat PowerPoint … found all these cool graphics … got to share it with everyone'. Endowed-Strivers easily leapfrog from synthesizing information to creating digital content. The capacity to produce digital information gives Endowed-Strivers yet another advantage over their less-advantaged counterparts.

Section II: Entrepreneurial-striving: Linear and compensatory

In contrast to Endowed-Strivers, Entrepreneurial-Strivers encounter far leaner information opportunity structures where resource access carries heavy costs. Unlike Endowed-Strivers who enjoy information on demand, Entrepreneurial-Strivers must engage in extensive planning to obtain the

barest access to resources. Entrepreneurial Striving depends not only on creating Plans A and B but also coming up with Plans C and D: 'I can try to go before school … if I don't have to go to work, I can go the library … if it's closed … I can try to get a ride and go to my cousin's house'. Exhibiting a taste for the necessary, Entrepreneurial-Strivers rely on linear compensation strategies to gain basic access to informational resources. Ultimately, ongoing resource shortages result in an other-reliant information habitus for information synthesis.

Entrepreneurial-Strivers lack reliable internet access or even functioning hardware at home. Without continuous access to IT, some have lower quality resources now than in the past, 'I need a laptop or a computer because my old one broke'. While many have no home internet access, others struggle with inconsistent or low-quality access: 'There have been times when my family cannot afford to pay the bills-thus we lose our service a certain amount of time. During that time I walk to the public library but the use is restricted'. Some have low-quality access that is barely functional: 'Internet fails often and computer sometimes is too slow at home. After school I do wrestling so I don't have enough time to use internet at school'.

Most Entrepreneurial-Strivers cannot afford alternate internet access via cell phones. Few have snazzy smart phones or unlimited data packages to access digital information at will. Many rely on pay-as-you-go cell phones with only basic service: 'My cell phone only calls'. Few can use their cell phones as much as they would like for basic calling: 'Gotta watch my minutes or I'll run out'.

Instead, Entrepreneurial-Strivers must actively find other access points for computing, internet, and printing. At school, Entrepreneurial-Strivers compete for scarce IT resources. With thousands of students on campus, there is a single computer lab and limited mini-bank terminals in the library, college center, career center, and selected classrooms. This Entrepreneurial-Striver surmounts obstacles in and outside of school:

> Sometimes flash drives are not compatible with the computers they have in the school library so it's very hard to get things printed out. And I don't have a printer, and sometimes I have no time to go to the library. Also a lot of the time the computer lab is closed or the computers in the library are not working at all.

Some Entrepreneurial-Strivers rely on community centers; yet these are inconsistent: 'I used to go to the Franklin Center … but someone was bad … then they shut it down'. In addition, these Strivers must find places where they can print their assignments for free: 'Mrs. Brown knows I don't have a printer at home so she lets me print my assignments in class'. Another goes to the school computer lab where she must ask for special permission to print more than two pages of homework, 'Ms. O'Brien will let me print more than two pages if I ask'.

Just as they must engage in compensatory strategies for digital media, Entrepreneurial-Strivers must formulate action plans to acquire access to non-digital media. Many rely on the school and public libraries: 'I don't have too many books at my house … so I get books from the library'. Yet going to the library takes other scarce resources: 'When I need to go to the library, I have to wait for my dad to get off work. He drives me and waits outside'. Unable to afford home subscriptions, Entrepreneurial-Strivers must share copies of newspapers and magazines outside of the home.

Entrepreneurial-Strivers' homes provide neither synergistic access to media nor access to knowledgeable family members. To compensate, Entrepreneurial-Strivers turn to teachers: 'I get help from my teachers … my parents don't use the computer – they can't tell me what to do'. Entrepreneurial-Strivers explain that they rely on educators to guide their information appropriation: 'I can't always find what I want using the internet … when I need help I go ask the teacher' and 'I might go to the library or find someone that's familiar with the subject and ask

for their help'. However, by repeatedly turning to educators, Entrepreneurial-Strivers internalize an other-oriented stance towards information synthesis.

Not only do compensatory strategies require tremendous effort, but they often compel Entrepreneurial-Strivers to rely on others and consume media sequentially. Entrepreneurial-Striving relies on patchwork access to informational resources in disparate physical locations that forces each medium to be consumed on its own. One Entrepreneurial-Striver explains that on-task behavior is critical to maximize basic access to digital resources: ' … at the [public] library, they only give you thirty minutes … can't waste my time reading [books] when I'm at the computer'. Informational resource shortages force Entrepreneurial-Strivers to adopt a strategy of on-task and sequential engagement. Entrepreneurial-Strivers might ask a teacher for help after school, read a textbook while waiting for the bus to the public library, use the library computer, check out a library book, read borrowed materials at home, and return to school the next day to ask teachers for help.

While their information appropriation is linear by necessity, it precludes Entrepreneurial-Strivers from the multimodal experience enjoyed by Endowed-Strivers. In consequence, Entrepreneurial-Strivers' isolated and linear information opportunity structure inhibits them from internalizing reliance on their abilities to evaluate information: 'I usually research on the websites that my teachers have given me in the past because if teachers share it with students then it's pretty trustworthy'. Many Entrepreneurial-Strivers lack both the wealth of contextual knowledge provided by home media and knowledgeable family members, as well as the self-assurance built through long-term synergistic media consumption. To compensate, they adopt an other-reliant information habitus and rely on teachers: 'I make sure that the facts are true and the website is good with my teacher before using it in my project'.

While an other-reliant information habitus minimizes the potential to make mistakes, it also inhibits Entrepreneurial-Strivers from adopting a self-reliant stance towards content production. When disadvantaged Entrepreneurial-Strivers notice that something is 'wrong' on a website, they turn to educators: 'If I'm looking at a couple of sites and something doesn't add up, I'm gonna ask a teacher who is right'. Another contributes, 'Change something on Wikipedia? Ohhh no. Ask Mrs. Fenwick is more like it'. Yet a third concurs, 'Correct something on Wikipedia? No way. I'm more interested in going to a teacher to make sure I have the right information'. Entrepreneurial-Strivers are also unlikely to have the skills needed to create digital content: 'Nobody in my group knew how to do PowerPoint so we did a poster instead'. Lacking the IT equipment to produce content at home, they turn to non-digital skill sets: 'I can draw really well'. Without Endowed-Strivers' digital skills and internalized self-reliance, Entrepreneurial-Strivers are disadvantaged in their information appropriation, information synthesis, and digital content creation.

Section III: School empowered-striving

The third section examines Empowered-Strivers with meager information opportunity structures at home and liberal information opportunity structures at school. Empowered-Strivers represent a case where students without home resources are empowered to move from linear to synergistic information synthesis, as well as from an other-reliant to a self-reliant information habitus. Here, Empowered-Striving can flourish when school resources and educator modeling act as substitutes for home informational resources.

Two kinds of IT courses at school create the necessary conditions for Empowered-Striving: (1) IT-skills courses and (2) Integrative-IT courses. IT-skills courses are taught in computer classrooms in which each student has a terminal and in which students are trained in an array of IT applications. IT-skills courses empower Strivers with foundational IT skills and access to material

IT resources. In Integrative-IT courses, a significant portion of coursework relies on computing and digital resources in the computer lab or classroom mini-banks. Integrative-IT courses provide access to non-digital media, integration of IT into scholastic work, and educator modeling of synergistic information synthesis. The combination of these courses is necessary to create an information opportunity structure that gives Empowered-Strivers both consistent access to resources and the analytic skills to internalize a self-reliant information habitus.

Empowered-Strivers explain that taking an IT-skills course gives them foundational tools via teacher modeling and continuous access to digital resources at school. These functions are particularly important for Strivers with information opportunity structures lacking resources and IT-savvy parents at home: 'I learned to keyboard, use the internet, search for stuff, save stuff on flash'. IT-skills courses provide hands-on time to practice skills and complete work digitally to build self-assurance: 'Now I can do what I need to'. Taking an IT-skills course also provides opportunities for resources and continued skill building across Empowered-Strivers' high school careers: 'I had Ms. Maker's class two years ago … Makes me feel better to know I can go see her'. Most of the educators teaching IT-skills keep former students updated on IT and allow them to use computers in their classrooms before school, at lunch, and after school: 'Once I took her class my sophomore year, she let me come in at lunch to use the computer … still go there'.

Significantly, IT-skills courses prepare Empowered-Strivers to succeed in Integrative-IT courses. Equipped with IT-skills, Empowered-Strivers are ready to meet the challenges of integrating IT into substantive courses: 'When I had to research a paper, our teacher had us look things up online. I had all of this before in my computer class, so I already knew how to research and save it to USB'. IT-skills courses allow Empowered-Strivers to build the skills they need to keep pace in Integrative-IT courses: 'I woulda been really behind in my science class – we had to do our assignments with the computer. But my guidance tech [had] also put me in computer aps … that class gave me what I needed for science too'. This Empowered-Striver explains how taking an IT-skills course gave him the foundation he needed: 'When I got to AP English, I knew how to format my papers'. Empowered-Strivers who come to an Integrative-IT course after completing IT-skills hit the ground running. Those who tackle Integrative-IT courses without a skill base must struggle to remediate their skill gaps: 'Everyone else seemed to know more than me on the computer'.

Empowered-Strivers can fully capitalize on the synergistic learning central to Integrative-IT courses if they enter with foundational skills. Integrative-IT courses simulate information-rich home environments by providing non-digital informational resources: 'I can use in-class sources such as encyclopedias and books related to the topic being researched' and 'I can borrow books from her room', as well as digital resources: 'I get to use the mini-banks when I need them'. When Empowered-Strivers have relatively constant access to informational resources, it creates a buffer zone allowing them to use their energies for substantive learning rather than competing for scarce resources.

For Empowered-Strivers, Integrative-IT courses may act as substitutes for familial expertise. Teachers transmit knowledge for schoolwork all the while modeling IT skills and integrative practices that are not available at home: 'I didn't know what to do, so Ms. Baker told me to come in to get help. She showed me what to do over and over … let me use the computer to practice … '. Peers can replace the support offered by wired siblings to help Empowered-Strivers keep pace: 'My friend teaches me how to do all sorts of junk … like how to get an email [to turn in homework] … use PinkMonkey … ' and 'I sat next to Tommy. When I had trouble, he showed me what to do'. Just as family members teach one another, so do members of a classroom community in which everyone needs to master the tools to contribute: 'It was a group grade, so my group made sure I knew what to do with the computer'.

Most important, Integrative-IT models the synergistic media that Endowed-Strivers enjoy at home. Teachers model simultaneous use and appraisal of multiple informational resources through assignments incorporating in-class, concurrent use of textbooks, print materials, videos, and digital resources: 'Mrs. Brown had us use the lab and our books and took us to the library'. Teacher modeling of integrative analysis of multiple sources is essential for Empowered-Strivers to learn to adjudicate between different informational resources: 'It came together with her having us look at all those different things'. Through repeated exposure to informational resources and teacher modeling in resource-rich courses, Empowered-Strivers can adopt a self-reliant information habitus thanks to a synergistic information opportunity structure at school. Through this process, Empowered-Strivers can internalize the authority to independently appraise information: 'I decide if the info is trustworthy by seeing how the info on one site is compatible with other sites' info'.

Empowered-Strivers are equipped with the requisite skills and self-assurance in their ability to judge information necessary for digital content creation. Here again skill building at school is critical: 'Yeah I took computer applications … I learned how to format my docs, do PowerPoints … later for my group project when we had to do presentations and send them on the internet … I knew how to do it'. Another describes mastering IT for her history class, 'We make podcasts, post our questions online … I posted a link I thought it would be cool for everyone to see'. A third adds, 'Before I took that class I like *never* woulda thought that I could put stuff on the internet … I like thought that you had to be special or somethin' …'. As with information synthesis, Empowered-Strivers can forge ahead like their Endowed counterparts when the school intervenes to give them IT-skills courses that push them from information consumers to content producers.

When Empowered-Strivers make this leap to a self-reliant information habitus and content creation, they break the linear cycle induced by the constant effort to compensate for scarce resources. IT-skills and Integrative-IT courses can act as substitutes for rich home information opportunity structures enjoyed by Endowed-Strivers. While school resources and educators cannot entirely replicate rich home resources, they can equip Empowered-Strivers with skills that enable them to adopt synergistic practices to move beyond the Entrepreneurial-Strivers' experience of scarce and inconsistent resources. Unfortunately, the school does not have enough resources for all Strivers to take both an IT-skills course and an Integrative-IT course. But for those Empowered-Strivers fortunate enough to participate, this dual-learning information opportunity structure provides benefits that maximize Empowered-Strivers' efforts and allows this group to move forward with a self-reliant information habitus.

Discussion

The study advances our understanding of the links between access conditions, information opportunity structures, and the information habitus. Analysis unearths the complex relationship between the costs and benefits of accessing informational resources, the richness of information opportunity structures, and the kind of information habitus internalized. The findings disclose three distinctive forms of striving: Endowed, Entrepreneurial, and Empowered. Each type of Striver confronts distinctive information opportunity structures comprised of IT, non-digital media, and knowledgeable individuals. These information opportunity structures provide access to different skill-building opportunities and informational resources at home, school, and third places. They also give rise to distinctive kinds of information appropriation practices, as well as information synthesis and content production related to informational self-conception.

Juxtaposing the Endowed, Entrepreneurial, and Empowered-Strivers, we see how particular kinds of information habitus emerge from particular access conditions and information opportunity structures. The analysis throws into sharp relief the many advantages that accrue to

Empowered-Strivers who engage in synergistic information synthesis. Endowed-Strivers consume large quantities of information relevant to their schoolwork without having to bear heavy procurement costs, whether effort, money, or social capital. Encountering rich and diverse information opportunity structures, Endowed-Strivers are self-reliant information adjudicators and producers. Synergistically comparing, contrasting, and combining information gleaned from multiple sources, they are able to weave together and adjudicate between multiple pieces of information.

The findings also leave little doubt about the disadvantages experienced by equally motivated but less well-endowed Entrepreneurial-Strivers. For them, gaining access to information sources entails expenditure of substantial effort. They must carefully plan and orchestrate their information appropriation activities in linear sequence travelling from one resource to another. Ultimately their linear strategies facilitate an other-reliant information habitus that hampers their information appropriation and information synthesis.

As the study shows, however, these disadvantages can be remedied by school-based interventions, which facilitate development of an information habitus that approximates the habitus of the Endowed-Strivers. When school-based interventions provide multimodal information opportunity structures, they can catalyze the kind of exploratory and integrative information synthesis that enhances scholastic work. Although continuous and costless exposure to information yields the highest information capital payoffs, it is not the only way of building such capital. School-based interventions, when administered to highly motivated students, do pay dividends in terms of their capacity to appropriate, synthesize, and produce information relevant for schoolwork.

Conclusions and implications

Using the concept of the information habitus allows us to understand how Strivers develop self-reliant and other-reliant stances towards information synthesis that are deeply rooted in the accumulation and internalization of information capital. In making these connections, the article advances beyond previous studies by addressing an important issue raised in Bourdieu's early work: how school and home socialization relate to class reproduction. Bourdieu and Passeron (1990) argue that there is a significant relationship between the socialization that takes place in the classroom and the socialization that takes place in the family milieu. They claim that the school environment necessarily reinforces the class-differentiating effects of the primary socialization occurring in the home, as it generates a kind of 'scholastic' cultural capital that mirrors the already existing cultural capital.

The present analysis examines this thesis from the perspective of abundant home informational resources as they shape information appropriation and information synthesis. The study aims to determine whether and to what extent home and school information opportunity structures shape the information habitus. The research also asks whether school-based socialization processes necessarily reinforce familial socialization vis-à-vis digital information appropriation for scholastic work. To make these inquiries, the study traces the self-reliant information habitus and the other-reliant information habitus to their roots in specific information opportunity structures.

A comparison between Endowed and Entrepreneurial-Striving upholds Bourdieu's linkages between school environments and socialization within the family. We see this most clearly in contrasting Endowed-Strivers' adoption of a self-reliant information habitus with Entrepreneurial-Strivers' adoption of an other-reliant information habitus. Undeniably Endowed-Strivers' abundant home informational resources enhance scholastic performance in information appropriation and information synthesis for schoolwork. The case of the Entrepreneurial-Strivers also adheres to

the Bourdieuian model of education in which school-based socialization reinforces the class-differentiating effects of familial socialization. Comparing these two groups, the study's findings largely bear out the idea that the familial environment has profound consequences for the information habitus.

Nonetheless, the study also shows how particular school IT interventions may break this cycle. The research makes clear that there are at least two distinct pathways to a self-reliant information habitus: an 'endowed' pathway enjoying an information-rich environment and an 'empowered' pathway benefitting from school-based substitutes for home resources. Endowed-Strivers enjoy costless and constant access to diverse information opportunity structures. They develop a self-reliant and synergistic information habitus with relative ease thanks to long-term exposure to rich information opportunity structures in the familial environment.

Yet Empowered-Strivers demonstrate that particular combinations of school IT resources and educator modeling can act as proxies for rich home information opportunity structures. For Empowered-Strivers, the self-reliant information habitus originates in the school environment through integrative-IT interventions. Once freed from immediate resource scarcities, the self-reliant information habitus is inculcated through formal classroom instruction combining educator modeling and synergistic access to multiple informational resources. When they experience an integrative-IT intervention, Endowed-Strivers are liberated from linear information appropriation and move beyond other-reliant information synthesis at least with regard to IT for scholastic work. However, making this leap relies on the school providing a particular combination of both access to informational resources and educator modeling of synergistic information appropriation and information synthesis.

In Bourdieuian terms, this integrative-IT intervention releases these Strivers from the constraints imposed by their other-reliant information habitus that reflects the unfavorable information opportunity structures in their familial environment. When Empowered-Strivers are freed from a taste for the necessary, this intervention catalyzes the rapid acquisition of information habitus that more-advantaged students acquire gradually over a long time by playing seriously (Bourdieu, 1980). Empowered-Strivers present an unusual but theoretically revelatory case that demonstrates how the acquisition of integrative-IT synthesis skills in the classroom can compensate for an unfavorable information opportunity structure outside the school environment. For these highly motivated students, school-based interventions can make a crucial difference.

This kind of intervention serves as an exemplar of what Loader (1998) terms 'a strategy for equality in the information age' (p. 4) with which to re-evaluate Bourdieu's model of educational socialization concerning students who have the opportunity to take both IT-skills and Integrative-IT courses. Comparing Endowed and Empowered-Strivers shows how Strivers with normative access to different kinds of information may adopt parallel stances towards how information should be adjudicated. These two kinds of striving show that the right kinds of classroom experience can provide disadvantaged Strivers with a school-based information opportunity structure that can ameliorate the effects of information deprivation outside of the school environment. A self-reliant information habitus develops with the right combination of digital resources, non-digital resources, and modeling that enhance Strivers' abilities to synergistically evaluate information essential for schoolwork.

As this finding indicates, there are at least two different avenues through which information capital can be augmented: the informal avenue in the home and the formal avenue in the school. In the case of the Endowed-Strivers, informal acquisition of skills and knowledge come through prolonged multimodal exposure. Yet, in the case of the Empowered-Strivers, certain kinds of formalized instruction in concert with resource-rich environments also enhance the acquisition of information capital. From a broader perspective, this finding suggests that particular kinds of educational environments can reverse the internalization and socialization processes occurring in the

home. In the case of the Empowered-Strivers, the school environment does not act as an institutional agent of class reproduction by reinforcing the effects of the familial milieu. Rather, integrative-IT modeling of self-reliant information synthesis by educators can play an important role in compensating for the unfavorable information opportunity structures disadvantaged students confront outside the classroom.

Finally, in staying true to the complexity of these processes, it is fruitful to re-examine and reconceptualize the notion of information capital, as well as its causes and consequences. While earlier definitions of information capital by van Dijk and Hamelink are useful, they highlight the technical skills component of information capital. By contrast, this study shows the importance of also emphasizing global information opportunity structures comprising multiple information channels that inform new media engagements. The analysis makes it clear that information capital arises from exposure to information opportunity structures conceived holistically. While information opportunity structures include IT-mediated information channels, they also must incorporate non-digital media and, especially, knowledgeable individuals who can act as information conduits. As this inquiry demonstrates, the quality and quantity of information capital crucially depends on how easily one gains access to multiple forms of information in synergistic rather than linear patterns.

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Notes on contributor

Laura Robinson is Assistant Professor in the Department of Sociology at Santa Clara University. She earned her PhD from UCLA where she held a Mellon Fellowship in Latin American Studies and received a Bourse D'Accueil at the École Normale Supérieure. In addition to holding a postdoctoral fellowship on a John D. and Catherine T. MacArthur Foundation funded project at the USC Annenberg Center, Robinson has served as Visiting Assistant Professor at Cornell University and Visiting Scholar at Trinity College Dublin. Her research has earned awards from CITASA, AOIR, and NCA IICD. Robinson's current multi-year study examines digital and informational inequalities. Her other publications explore interaction and identity work, as well as new media in Brazil, France, and the United States. Her website is www.laurarobinson.org.

Note

1. All places and names are pseudonyms. Mispronunciations and grammatical errors have been corrected when necessary for clarity.

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