

The Digital Media Industry in Canada through Crowdfunding

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In recent years, research into the geography of finance – that is, scholarship focused on understanding the spatial distribution of financial flows – has received considerable attention (O’Brien and Keith 2009, Dixon 2011, Martin and Pollard 2017). Often framed in response to Richard O’Brien’s 1992 book *Global Financial Integration: The End of Geography*, this scholarship has concerned itself with testing hypotheses related to the relative ‘spikiness’ or ‘flatness’ of financial flows in the Internet era, with many scholars focused on traditional sources of finance such as bank loans, angel investing, venture capital, and government funding (Dymski 2009, Dolencic 2010, Green et al. 2015, Zhao and Jones-Evans 2017). While evidence does exist that ICTs have somewhat succeeded in “[weakening] the well-established Christallerian hierarchy of scales” (Moriset and Malecki 2009, p. 257), the vast majority of research in the field demonstrates that the spatial distribution of finance remains heavily clustered (Martin and Pollard 2017). Multiple studies have found that distance remains an important barrier to accessing business finance, and the majority of loans and business services provided to small businesses are still made from nearby institutions (Peterson and Rajan 2002, DeYong et al. 2006, Alessandrini et al. 2009, Udell 2009, Brevoort and Wolken 2009, Cerquerio et al. 2009). This spatial bias in finance has also been found to persist when looking at equity-based finance, as investors in corporate stocks have also been found to demonstrate a ‘home bias’ effect in their investment decisions. In other words, despite the digitization of stock trading, investors still seem to prefer to purchase stock in nearby companies over more distant ones (Wojcik 2009).

Since the mid-to-late 2000s, crowdfunding (CF), the solicitation of funding from multiple, individual donors via internet platforms, has become an increasingly viable means through which individuals have been able to raise funds for a variety of project ideas such as artistic endeavors, start-up businesses, or charitable causes. Intended to help entrepreneurs, social enterprises, and charitable organizations circumvent challenges associated with gaining access to traditional sources of finance such as bank loans, angel investment, and venture capital, scholars such as Mollick and Robb (2016) argue that CF has opened doors for individuals who otherwise might not receive funding for their ideas. According to Yu et al. (2017), as of 2015, the amount of money successfully raised via myriad CF platforms such as Kickstarter, goFundme, and Indiegogo totaled \$33 billion (USD), while in their 2015 crowdfunding industry report, Massolutions (2015) projected that by 2016, the amount of funding raised by CF was expected to surpass the amount of funding raised through venture capital in the US.

While most studies reviewing crowdfunding platforms find that crowdfunding still shows strong clustering, this clustering is not well explained. In response, our first paper explores why we find geographical clustering of finance even with digital funding platforms. We find that the ability of Kickstarter projects to attract funding or backers is spatially clustered more than the simple number of projects. The findings suggest that while the locations of Kickstarter projects only weakly cluster (i.e. projects can be found everywhere), projects that are able to recruit funding cluster more strongly. In addition, we find that different kinds of

projects have a different spatial spread. In particular, we find that digital media projects¹, which in many cases have digital or virtual products and hence may find their success less tied to a specific location, cluster more than location-specific projects. These results reveal how population, education, wealth, and other concentrations of economic activity can predict CF activity. Yet, once we control for the pre-existing geographic distribution of population and economic activity, we find more complex patterns of CF geographic clustering. The distribution of total Kickstarter funds raised across cities is largely explained by the population and economic activity controls. Even conditional on these controls, however, funds raised for digital media projects do spatially cluster, while funds raised for location-specific projects exhibit significant dispersion. Projects' aggregate funding and number of backers cluster for digital media projects, above and beyond the prior concentration of socioeconomic and employment factors. Conversely, more local projects' aggregate funding and backers tend to be more spatially dispersed than prior economic activity would predict. Our results suggest that crowdfunding's potential to flatten or heighten geographic clustering depends on the type of project. For local projects specifically, the world was already spiky, and it is a bit less so thanks to crowdfunding platforms like Kickstarter. Next steps for this data are two fold: one, to examine which regions are better positioned to take advantage of this new, democratic landscape of Digital Media? Specifically to understand whether the 'growth rate' over time in terms of Kickstarter activity was being favored in certain types of metros. And two, to dive in the regional characteristics and analyze the Intra-metro-area sorting patterns of crowdfunding activity.

Our second stream of work from the data set focused on the characteristics for success of crowdfunding projects in Canada. This paper, led by Sana Maqbool, an MGA student, focuses on how signaling to attract funding has changed in the digital economy. The paper analyzes signals used by entrepreneurs on a crowdfunding platform to raise funding for their projects. We are interested in examining whether digital signals—specifically the use of external websites, such as social media, professional, and hybrid websites—influence entrepreneurs' ability to attract funding. In addition, we test whether the signals that help the entrepreneurs attract funding align with their ability to build and deliver the final product. Studies on the ability of firms and entrepreneurs to attract funding focus on the signals that they present to investors. During the initial screening stage, the firm is informationally opaque and risky, therefore obtaining funding from external sources, such as financial institutions and venture capitalists, is difficult (Berger & Udell, 1998). The problem arises because of the presence of information asymmetry: the entrepreneurial team has more information about the firm and the product than potential investors (Akerlof, 1970; Shapiro, 1982; Stiglitz, 1989). Entrepreneurs subsequently signal unobservable qualities in an attempt to attract funding. In this context, quality refers to the “underlying, unobservable ability of the signaler to fulfill the needs or demands of an [investor] observing the signal” (Connelly, Certo, Ireland, & Reutzel, 2011, 43). Therefore, quality can refer to the unobservable ability of the individuals (Spence, 1974) or the organization to earn positive cash flows (Ross, 1977). Quality can also refer to the entrepreneurial team's reputation (Kreps & Wilson, 1982) as well as prestige (Certo, 2003). The percentage of equity held by the entrepreneurial team (Leland & Pyle, 1977), the level of debt

¹ See Appendix 1 for definitions of Digital Media and Local projects.

(Ross, 1977), the level of planned expenditure (Trueman, 1986) and the choice of auditor (Beatty, 1989) are some examples of established signals.

Since the inception of the web 2.0, entrepreneurs can amass funding for their ventures from a wider audience than before, as they are no longer restricted to their personal connections, venture capitalists, business angels, and financial institutions. Instead of emphasizing different aspects of their business plan for different potential investors, entrepreneurs who use the internet to attract funding must present the same business plan to all potential financiers. This means that they are required to present signals related to the product, the entrepreneurial team, and their financial prospects such that each heterogeneous receiver interprets the signals positively. Online crowdfunding, regardless of the model used², funding decisions are based on entrepreneurs' credibility and whether the crowd believes that the entrepreneur is trustworthy (Wojciechowski, 2009). The kind of credibility signals that the entrepreneurs send depend on whether they use the direct or indirect model. Because of the dynamic nature of online crowdfunding, the medium used to display the signal must provide the latest information or "snapshot" about the entrepreneurial team and/or the product (Janney & Folta, 2003). In all crowdfunding campaigns, entrepreneurs send signals to eliminate the two sources of uncertainty in crowdfunding campaigns: the quality of a project and the real chance of success (Agrawal, Catalini, & Goldfarb, 2014).

Our results identify discrepancies between signals that are positively received by backers to attract funding and signals that indicate that the team is prepared and has the intention to deliver the product. In particular, we find that professional websites provide the best signal for attracting funding, whereas the use of hybrid websites signals the ability of the entrepreneurs to deliver the finished product on time. Social media websites have a smaller but significant impact in increasing the likelihood of meeting the funding goal than professional websites; social media websites do not affect the probability of delivering the product. Nevertheless, entrepreneurs must connect their social media accounts, which they actively use, to their campaigns to prove that the campaign is authentic. All three types of external websites are important during a crowdfunding campaign.

These two streams of work have important policy implications. In general, crowdfunding does provide access to funds for local projects. However, the case of the digital media industry indicates that location is still important, even for an industry that is mostly virtual. As such, talent, knowledge, and wealth impact the ability of some entrepreneurs to reach their funding goals. If we want to see entrepreneurial success in the "not conventional" places, policy that focus on talent and funding can be an important tool in channeling those funds and access to funds. When we consider the broader social impact of the digital transformation in terms of jobs, equity and inclusion we find that it's only partial. We do see local changes, especially for locally related projects (community gardens, local food trucks, etc). However, the broader impact has not happened yet. Lastly, and important for knowledge and talent base, the digital

² In practice, CF follows five distinct models, each of which brings together a different set of project founders, backers, and motivations (Mollick 2014, Belleflamme et al. 2015). As noted by Belleflamme et al. (2015), the five models of CF include the donation model, the reward model, the pre-purchase model, the business development or lending model, and the equity model. Our empirical analysis focuses on a prominent CF platform that uses a reward-based model. In this model, project founders offer some rewards – ranging from token gestures (e.g., acknowledgment on a website) to material products (e.g., T-shirts, deluxe versions of the product) to opportunities to interact with the founders or production (e.g., chances to be an extra in the movie, invitations to a product release party) – to backers in return for their financial support.

education tools for entrepreneurs are as important as traditional business education. Its not about having presence on the web but more about the kind of presence.

Appendix 1 – Digital Media and Local Projects Categories

<u>DM</u> subcategories:				<u>Local</u> subcategories:
3DPrinting	Horror	Print	Zines	Architecture
Action	Illustration	Product Design		Civic Design
Animation	Indie Rock	Publishing		Comedy
Anthologies	Interactive Design	Punk		Community Gardens
Art Book	Jazz	RB		Dance
Audio	Journalism	Radio Podcast		Events
Blues	Letterpress	Robots		Farmers Markets
Childrens Book	Literary Journals	Rock		Farms
Chiptune	Metal	Romance		Festivals
Classical Music	Mixed Media	Science Fiction		Food Trucks
Comic Books	Mobile Games	Shorts		Installations
Comics	Movie Theaters	Software		Live Games
Cookbooks	Music	Sound		Makerspaces
Country Folk	Music Videos	Television		Movie Theaters
Digital Art	Musical	Thrillers		Performance Art
Documentary	Narrative Film	Video		Performances
Electronic Music	Nonfiction	Video Art		Places
Fantasy	Painting	Video Games		Plays
Fiction	Periodical	Wearables		Public Art
Film Video	Photo	Web		Residencies
Games	Photobooks	Webcomics		Restaurants
Graphic Design	Photography	Webseries		Spaces
Graphic Novels	Poetry	World Music		Theater
Hip Hop	Pop	Young Adult		Workshop