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Janis L. Gogan

Bentley University, jgogan@bentley.edu

Howard E. Goode

Bentley University, hegoode@gmail.com

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An Agile IT-Enabled Hybrid Social Startup

Completed Research

Janis Gogan
Bentley University
jgogan@bentley.edu

Howard E. Goode
Bentley University
hegoode@gmail.com

ABSTRACT

In an IT-enabled hybrid social startup, how and why does the social entrepreneur respond to conflicting commercial versus social norms and practices, as well as IT innovation challenges? We conducted an exploratory single-case study of an IT-enabled hybrid social startup consisting of a charitable pharmacy, two non-profit consortia, and two for-profit IT businesses, all co-founded by a pharmacist/social entrepreneur (with partners) who aimed to distribute donated “wasted” medications to needy patients. The two for-profit organizations were designing a blockchain and complementary web and mobile applications for secure, cost-effective donated-drug distribution, for use by this entrepreneur’s charitable pharmacy and other organizations committed to matching donors with needy patients. Study findings suggests that multiple forms of IT agility, multiple forms of business agility, and a unique form of social-commercial agility help an IT-enabled hybrid social startup persist, despite financial and other challenges.

Keywords (Required)

IT innovation, social entrepreneurship, blockchain, social enterprise, startup

Introduction

Like a commercial startup, a social startup adjusts strategic, structural and operational elements along the road to financial viability (Dacin et al. 2011). Prior studies report social entrepreneurs confront competing commercial and social demands (Dees 1998; Austin et al., 2006; Bacq & Janssen 2011). How do they respond to IT innovation challenges in this context? I present initial findings from an exploratory single-case study of an IT-enabled hybrid social startup consisting of a charitable pharmacy, two non-profit consortia, and two for-profit startup IT businesses. With partners, a social entrepreneur founded these organizations in order to cost-effectively distribute donated medications to needy patients. To that end, the two for-profit organizations were designing and intended to build a blockchain and complementary web-based and mobile applications, for use by this charitable pharmacy and other organizations seeking to efficiently and securely deliver donated medications to authorized patients.

The paper contributes to a small stream of studies of IT-enabled hybrid social enterprises. While a robust stream of research has focused on IT-enabled entrepreneurship, few studies have focused on IT-enabled social entrepreneurship, particularly at the startup phase.

Social Enterprise and Social Entrepreneurship

Social entrepreneurship “solves social problems using market-based methods” (Hota et al. 2019, p. 1). Addressing how non-profit, governmental or for-profit organizations engage in societally-beneficial activities (Austin et al. 2006), social entrepreneurship emerged as a distinct field around 2005. A “social enterprise” is an organization that “applies the entrepreneurial practices of business to the pursuit of opportunities for social value creation and social transformation, rather than for traditional profit maximization” (Richardson et al. 2014).

“Social entrepreneurship” and “social enterprise” cover a spectrum of non-commercial and commercial activities (Dees 1998). (Table 1, below). When traditional non-profits launch commercial activities, “often-perilous currents of commercialization ... must be navigated with care” (Dees 1998, p. 7). “Perils” include perceived conflicts between new revenue sources and social mission, difficult development of new

capabilities and processes, core constituents’ skepticism/distrust, and for-profit competitors (Dees 1998). Studies examined various organizations (large/small, longstanding/startup), stakeholders (beneficiaries, funders, employees, suppliers), and strategic, financial, ethical and other challenges (Short et al. 2009).

	Purely Philanthropic	←————→	Purely Commercial
Motives Methods Goals	Appeal to goodwill Mission driven Social value	Mixed motives Mission and market driven Social and economic value	Appeal to self-interest Market driven Economic value

Table 1. Social Enterprise Spectrum (Adapted from Dees 1998)

The tipping point for the social entrepreneurship field (point when publications accelerated, after a long lead-in) was 2005 (Hota et al. 2019). Table 2 summarizes its evolution since then.

Before 2006	2006 onwards	2010 onwards	2017 onwards
Social entrepreneur Social entrepreneurship	Social enterprise Social entrepreneurship	Hybrid social enterprise Social entrepreneurship	Ethical social enterprise Hybrid social enterprise

Table 2. Evolution of Social Entrepreneurship Research (Adapted from Hota, et al. 2019)

At least 16 literature reviews were published since 2005 (Hota et al. 2019). Studies cover four contexts: startup social enterprises, traditional non-profits that launch commercial enterprises, government agencies that launch commercial enterprises, and traditional for-profits that offer socially-responsible products and services (critics argue development of a strong theoretical foundation has been impeded by over-broad definitions (Dacin, et al. 2011), such as inclusion of CSR studies; Choi & Majumdar 2014).

Our case study examines the journey of a social entrepreneur who established a charitable pharmacy, then founded two non-profit consortia and two for-profit startup IT businesses to achieve his social aims. Together (how he viewed them) the five organizations constitute one hybrid social enterprise.

Social Entrepreneurship Challenges

Social entrepreneurs encounter challenges related to combining social and commercial goals and operations. When traditional nonprofits introduce commercial activities in their social programs, some stakeholders respond with skepticism and distrust (Dees 1998) – especially when leaders replace emotionally-sticky traditions with commercial ones (Austin et al. 2006, p. 12). Conflicting behavioral norms may play out in several ways. For example, rapid business-like growth is hard on organizations accustomed to a slower cadence of work (Austin et al. 2006). Many nonprofit leaders, lacking business training, experience difficulty acquiring necessary knowledge and building new capabilities (Dees 1998).

Researchers are encouraged to further study how various challenges are effectively managed – such as by investigating whether/how governance structures help (Bacq & Janssen 2011). One theory proposes successful social entrepreneurs manage with compassion, which is theorized to be a prosocial motivator that influences three cognitive/affective processes -- integrative thinking, cost-benefit analysis, commitment to a higher social cause – which in turn help leaders resolve tension and find acceptable paths to their social aims (Miller et al. 2012). *“Because social businesses represent an intermingling of traditional values associated with both for-profit and non-profit activity within the same enterprises, they join concepts traditionally held as contradictory ... The marriage of antithetical ideas ... leads to a different way of doing business.”* (Wilson & Post 2013, p. 716 and p. 730; see also Mair & Schoen 2007).

In contrast to this optimistic view, other studies report that competing tensions bring problems. An ethnographic study in England reported that social enterprises constantly negotiate “between diverse and competing goals, motivations and commitments” (Mazzei 2017 p. 304), which impede development of consistent and efficient operations. Inefficiency intensifies the pressure, which led organizations to focus

on constituents they could most easily serve, not those in greatest need. Tensions spiraled ever-faster, as these nonprofits came under fire for neglecting their core missions.

Hybrid social enterprises confront complex challenges in three broad areas: revenue-generating tactics, professionalizing the organization, legitimating a new business model (Ko & Liu 2020). Yet, few prior studies focused on how NPOs transform into hybrid social enterprises, and further research is thus needed on how and why challenges arise and are resolved during this transformation (Ko & Liu 2020).

To summarize: Prior social entrepreneurship research reveals four main challenges related to: 1) development of business knowledge, skills and capabilities; 2) conflict between commercial and social norms/objectives; 3) conflict between business and social practices; 4) stakeholder distrust/skepticism.

ICT for Good: ICT4D, Frugal IS Innovation, BoP, CSR

Among many studies of IS innovation and IT-focused entrepreneurship, few investigated IT-enabled social entrepreneurship or IT-enabled hybrid social enterprises. An extensive review of almost 300 papers (Steininger 2019) in 18 prominent journals (8 AIS Senior Scholars Basket, 4 top Entrepreneurship journals, 6 other prominent journals), just one dealt with IT-enabled social enterprise; a case study of the Cure4Kids pediatric cancer social networking platform hosted by St. Jude's Children's Hospital (Richardson et al. 2014). That study revealed that 1) St. Jude's open access philosophy attracted helpful collaborators; 2) use of open source tools kept costs low; 3) a "simple and adaptable" platform was designed for flexibility and adaptability, and the Cure4Kids initiative demonstrated customer agility, partnering agility and operational agility (dimensions proposed by Sambamurthy 2003).

With one social enterprise study revealed in Steininger's review (2019), we searched for relevant research in studies of ICT4D, Frugal IT Innovation, Bottom-of-the Pyramid, and CSR.

Many ICT4D projects fail. One proposed reason: four (or more) differing views of "development" aims lead different constituents to apply different ICT4D project evaluation criteria. Stakeholders who subscribe to a development goal of "freedom" or "wellbeing" (for example) may show disinterest in an innovation designed with "inclusion" or "economic productivity" as the aim (Chipidza and Leidner 2019).

The Frugal IT perspective extends the notion of entrepreneurial bricolage ("making do with what is at hand," per Baker & Nelson 2005), by noting that declining costs and improving performance of hardware and software technologies enable creation of cost-effective yet sophisticated IT innovations. Frugal IT studies intersect with ICT4D when they investigate provision of low-cost IT-enabled products and services in underserved sectors. A case study of a social network (Okwaho Network) for indigenous peoples of North America concluded that a Frugal IT Innovation Capability combines three types of innovation: 1) business innovation 2) IT innovation, 3) social innovation (Ahuja and Chan 2016).

Bottom-of-the-pyramid (BoP) research focuses on products and services designed for extremely impoverished customers. BoP marketers confront financial, spatial, temporal and information challenges (Tarafdar et al, 2013). Implementation of a community weather station in Africa demonstrated frugal IT deployment for a BoP shared-good infrastructure (Howell et al. 2018). BoP researchers are advised to study questions such as: Do business ecosystems (continuously collaborating multiple actors) contribute to BoP success? What revenue models are effective in BoP contexts? After conducting pilot tests, how do successful BoP initiatives scale up? 4) Are business model innovation and business process innovation necessary? 5) How do viable BoP initiatives involve their constituents? (Joncourt et al. 2019).

IT-related corporate social responsibility (CSR) initiatives aim to strengthen an organization's image or brand, develop and test innovations (Kanter 1999), provide technical skills training to increase this labor pool (Porter & Kramer 2007), and for other reasons. A case study of IT work outsourced to a poor Indian community revealed benefits and challenges for employees and the local community (Madon & Sharanappa 2013), and a case study of American outsourcer Liberty Sourcing revealed that IT-related CSR initiatives may apply commercial and social logics at different times. (Khan et al. 2018).

To summarize: Prior "IT for Good" studies (in ICT4D, Frugal IT, BoP and CSR research streams) propose that successful social innovation projects exhibit IT agility through open collaboration, use of open source tools, and building or acquiring a simple, adaptable IT platform. They exhibit business agility through

innovative business models, partnering/relational agility, and operational agility (e.g. process innovation, cost control), and they selectively apply commercial and social logics over time.

Research Method

We sought to conduct an exploratory study to answer the following overarching question: *How and why does the leader of an IT-Enabled Hybrid Social Startup respond to challenges (e.g., knowledge/skill acquisition, commercial versus social norms and practices, stakeholder skepticism/distrust)?* More specifically, in an IT-enabled hybrid social startup ...

- RQ1 Which challenges/tensions are related to development of IT knowledge and capabilities?
- RQ2 Does the social startup exhibit IT agility through open collaboration, use of open source code, use of a simple and adaptable platform, and/or other forms of IT agility?
- RQ3 Does the social startup exhibit business agility through an innovative business model innovation, partnering/relational agility, operational agility, and/or other forms of business agility?
- RQ4 Does the social entrepreneur selectively apply commercial and social logics?

A single-case study is an appropriate method for exploring “how and why” questions (Yin 2014, p. 29), especially in longitudinal studies (Yin 2014, p. 53). This case study, of a blockchain initiative for medication waste redistribution, was part of a larger research program on *IT Innovation in Health Care*. Blockchain is on Gartner’s Strategic Technology list (Cearley et al. 2017; Gartner 2019), and it is predicted that blockchain will not have widespread transformative impact in health care before 2029 (Blosch 2019). Thus blockchain is an early-stage IS innovation in health care.

In the AIS Scholars Basket of eight prominent IS journals, we found no studies of blockchain-based social entrepreneurship in health care. A call for research on blockchain-enabled supply-chains saw their value for health care (Treiblmaier 2018). Practitioner publications emphasized blockchain as a high-potential technology in healthcare (Peterson et al. 2016; Halamka et al. 2017; Pirtle & Ehrenfield 2018; Ribitzky et al. 2018) and in pharmaceutical companies’ supply chains (Blossey, et al. 2019; Felin & Lakhani 2018; Iansiti & Lakhani 2017; Lacity 2018; Nash 2018; Zahreddine 2018; Zhang et al. 2018).

With early-stage blockchain efforts underway in pharmaceutical supply chains, we sought a case site where we could focus on a social entrepreneur during early stages of an IT-enabled hybrid social startup. In early stages, the entrepreneur is the face of the organization, through interaction with the broader community and industry context. As a startup matures, norms develop and practices become routinized. At that point, much can be learned by observing work practices and capturing the perspectives of actors in many roles (we hope to conduct such a study when this initiative reaches that next stage.).

At a fall 2018 *Blockchain in Healthcare* conference sponsored by ConsenSys Health, one author attended a talk by “Dr. Block” (disguised) about a new “DrugsBlock” (disguised) initiative he was leading. We subsequently obtained permission to conduct a longitudinal case study of DrugsBlock. Data was obtained from the following sources:

- Face-to-Face interview with Dr. Block at the fall 2018 conference.

Observation (recorded):

1. 120 minutes: Dr. Block and associates presentation at a Feb 2019 IEEE Working group meeting.

Telephone interviews (recorded using Zoom):

1. 90 minute second interview with Dr. Block in winter 2019
2. 70 minute third interview with Dr. Block in spring 2019
3. 60 minute interview with the Director of Customer Service in spring 2019
4. 90 minute interview with the family member of a deceased cancer patient, whose leftover medications were donated to Dr. Block’s organization in summer 2019
5. Emails and short phone calls with Dr. Block in summer and fall 2019 and winter 2020.

Beyond factual questions (who/what/when) our interviews were conducted in a conversational open-ended style, so as to initially capture interviewees' unprompted thoughts about successes and challenges, and follow through with focused prompts, as appropriate.

Other Sources:

To triangulate on the case timeline and other facts, we developed an extensive archive of news accounts, blogs, and other primary and secondary sources reporting on the DrugsBlock initiative.

We drew on all of these sources to develop an accurate retroactive account of this social entrepreneur's journey from 2015 through 2017 and to chronicle his journey as it continued to unfold in 2018 and 2019.

The first product of this case study was a teaching case, prepared after the completion of factual coding ("anchor date" is May 2019). In follow-up phone calls and emails during development of that case, interviewees clarified case facts. Dr. Block reviewed several drafts, each time clarifying and sometimes describing unfolding new developments.

Interviews were transcribed using Zoom's closed captioning feature; transcripts were subsequently edited to correct transcription errors. Coding was done in winter, spring, summer and fall 2019:

- Factual coding supported creation of a timeline and map of actors to events.
- In several other rounds of factual and interpretive coding conducted in 2020, we noted evidence pertaining to our research questions.

Case Overview

Dr. Block's hybrid social enterprise journey reveals key challenges he encountered. Dr. Block, a licensed pharmacist and former member of the U.S. Marine Corps, worked in a poor neighborhood in one of the 15 poorest U.S. states (therefore, a BoP context). In 2013 he began considering how to help needy patients get affordable medications. In the first decade of his pharmacist career he saw many patients who, due to affordability issues, cut pills in half, skipped doses, or failed to pick up prescribed drugs -- actions that sometimes led to severe health issues. New cancer drugs were especially expensive.

In 2015 Dr. Block resigned his pharmacy post and (with a partner) launched a 501(c) (3) charitable pharmacy, "Charmacy" (disguised). He learned how to obtain affordable drugs from charitable wholesalers (which collect donated drugs from pharma companies) and "wasted" drugs from nursing homes and hospitals ("wasted" when a patient recovers, discontinues because of an adverse reaction, or dies). To raise money for Charmacy from his church and other sources, Dr. Block gave presentations describing heart-wrenching vignettes about patients struggling to afford medications.

Charmacy was set up as a membership service. Many members paid less than the posted \$600 annual membership fee, based on a sliding "ability-to-pay" scale. Some drugs were free, others were provided at wholesale cost. Skeptics questioned whether a membership model was appropriate; paying for membership plus at-cost purchases, would patients actually save money? Chronically ill patients could save a great deal, but critics warned that other patients might, in a given year, spend more than before (similar to critics of BJ's, Costco, or Sam's Club). However, patients were permitted to join or terminate membership at any time. This created financial uncertainty for the pharmacy, and as of winter 2020, membership fees and discounted sales did not generate enough revenue to fully offset operational costs.

Most states do not permit individual patients/families to donate wasted drugs. In 2016 Dr. Block successfully lobbied for a new law to permit charitable pharmacies to accept individually-donated wasted medications in his state. Once it passed, he hoped individually-donated medications would help reduce Charmacy operating costs. After the law's passage, it took two years for various agencies to finalize rules. Meanwhile, Dr. Block moved forward on several fronts. He co-founded a consortium of charitable U.S. pharmacies, to serve as an information source and catalyst for change. He attended conferences and workshops to learn about IT in health care. In 2017 he began to focus on potential blockchain solutions in

pharmaceutical supply chains. He invited various people he met at conferences or in his community to participate in a series of informal conference calls about how blockchains could support the processes of receiving donated medications, authenticating them, and redispensing them to needy patients. Soon, at conferences he was giving talks to persuade others that blockchains could be deployed in these contexts.

Next, Dr. Block founded two for-profit Limited Liability Corporations (LLCs) to develop software for sale or rent to other organizations. DrugsBlock LLC (disguised) was co-founded with the CEO of a small private software company. In summer 2018 this LLC launched a website to solicit medication donations and gather patient requests for medications. In one month, Dr. Block and his partner felt it generated enough offers and requests to prove the concept with Charmacy. Next, a team was formed to design and build a blockchain. Dr. Block requested that any software built by this company should be designed for maximum scalability and adaptability. He envisioned a “platform” consisting of blockchain tools and code that could be monetized for sale or rent to other organizations’ medication-donation services. A second LLC, co-founded with a local entrepreneur, built an Uber-like mobile app to support volunteers willing to drive donated drugs to authorized patients, and planned to design a compatible blockchain to support secure delivery of authorized wasted prescriptions to authorized patients. Dr. Block again hoped this software would use a common platform for scalability and adaptability, and that it could be sold or rented to other charitable organizations (engaged in medication redistribution or just needing to track volunteers who would drive patients to appointments, deploy voluntary responders in crises, etc.).

In winter 2019 DrugsBlock LLC joined a national consortium that planned to pilot-test a variety of blockchain applications in the pharmaceuticals supply chain. Dr. Block also established a new consortium that would focus on redistribution of wasted medications. He reached out to pharmacy schools, hospital and clinic pharmacies, and prescribers, who he hoped would help develop new solutions and test the DrugsBlock blockchain (by serving as nodes on it, once built). A few local organizations as well as one distant U.S. partner and one international partner joined this consortium by January 2020 (founding members paid a modest \$5000 consortium membership fee).

In 2019 some non-blockchain pilot tests of essential applications and processes were conducted, and in 2020 Dr. Block and a colleague continued to reach out to potential local partners and others whose vision was national or international in scope. The blockchains were still in the design stage, but he hoped by year-end 2020 a scalable secure chain-of-custody system for authenticating, dispensing and delivering donated drugs to authorized patients would be launched by DrugsBlock LLC and the other LLC. Dr. Block hoped both LLCs would soon attract venture funding.

Findings Mapped to Research Questions

RQ1 Which challenges/tensions are related to IT knowledge and capabilities?

Dr. Block expressed considerable IT-related frustration. Having read about agile software development, he expected a blockchain development team would work in a “fail-forward” way (create and test many prototypes, release a minimally-viable product for more extensive testing. He came to understand (at a high level) why a blockchain in this context needs an extensive design phase to avoid problematic changes later on. The technical issue is that when changes create “hard forks” in a blockchain, it can quickly become very unwieldy. A path forward is to focus on well-specified modular use-cases that translate into a series of fairly simple blockchains that can subsequently be linked together into an end-to-end system. Precise specification of modular use-cases requires extensive domain knowledge and thorough analysis. As of January 2020, Dr. Block had not yet fully come to terms with this challenge; he vacillated between optimism and frustration. Since several times he mentioned the hope that his organizations would soon attract venture capital, we believe his frustration stems from the realization that until the team develops a minimally viable blockchain solution, VCs will remain on the sidelines. He might have come to understand that the design teams’ slow pace is fairly typical for a blockchain initiative in an inter-organizational context such as a supply chain. Progress is likely also hampered by talent and funding constraints, but only the latter concerns him at this point.

Dr. Block moved forward rapidly on other IT initiatives. For example: unhappy with the first version of the DrugsBlock website, he oversaw a redesign (and produced some of the new code); it was launched in early 2020. He also oversaw development and launch of a minimally-viable mobile application to automate much of the data-capture that is necessary when medications are donated.

RQ2 Does the hybrid IT-enabled social startup exhibit IT agility through open collaboration, use of open source code, use of a simple and adaptable platform, and/or other forms of IT agility?

Dr. Block's hybrid social startup exhibits an open collaboration approach – he gathered information by attending conferences and inviting people to brainstorm about blockchain for medication redistribution. He and colleagues presented their ideas for a donated-drugs blockchain at IEEE workshops and other forums. The team chose the Ethereum platform for testing elements of the design (use of open-source code), and Dr. Block asked his team to design a scalable and adaptable system that could be offered (to Charmacy and others) as a “platform” (his word choice) that could support similar initiatives.

Dr. Block did not use the word “agile.” He did mention the acronym MVP (minimally viable product) and described a “fail-forward” philosophy – both of which are consistent with agility. He discovered a latent aptitude for developing applications (or at least, minimally-viable applications). Yet, we see risk in his embrace of IT agility, because we suspect he might have more confidence than is warranted by his current level of IT skill and knowledge. A hands-on manager, he will likely need to take his hands off the code as it is modified for interoperability and compliance with existing regulations and healthcare standards.

RQ3 Does the hybrid IT-enabled social startup exhibit business agility through an innovative business model, customer and/or partnering agility, operational agility, and/or other forms of business agility?

Dr. Block is energetic, persuasive, upbeat, action-oriented. In less than five years he cofounded five small organizations, presented at many conferences, built an extensive network of collaborators from whom he learned about many business and IT practices, and participated in another consortium's pilot testing. He is a tireless promoter whose actions suggest a deeply-rooted belief that it is better to “do something” and learn fast (i.e., be agile) than to plan thoroughly and learn slowly. His world view is similar to many entrepreneurs (both successful and unsuccessful ones).

The Charmacy membership model and its direct-fulfillment model (no retail presence) is an innovative business model, and at one point he attempted to sell a sort of private-label pharmacy-benefit service to help small businesses reduce their medication-benefit costs (that initiative was subsequently shelved). Dr. Block's decision to lobby for passage of a new law opened the door to allow it to re-dispense individually-donated drugs -- another innovative business model. The other LLC 's ride-sharing model is an innovative adaptation of an Uber-like business model, in the service of a social mission. Further evidence of business model agility may emerge as both social businesses mature.

Dr. Block developed a growing network of useful associates– some young and ambitious, others older and well known. Some focus on blockchains; others focus on serving needy patients. He has allied with useful partners and recruited small teams of people to join his organizations full time or part time (apparently offsetting low monetary compensation with shares in his LLCs).

Like many entrepreneurs, he constantly questions the status quo and launches small-scale experiments –. For example, a decision to shift to dispensing all ongoing chronic-disease prescriptions on a quarterly basis will reduce 2020 operational costs. Dr. Block also believes that in 2020, individually-donated medications will both help drive down pharmacy costs and attract new members.

Although Dr. Block embraces the agile philosophy of experimenting and learning, he has not yet learned how to carefully design experiments for optimal insight, and he appears to rely heavily on intuition rather than analysis. For example, the website that was set up to solicit donations and requests for medications did not capture sufficient information to accurately estimate granular patient demand and donor supply.

RQ4 Does the social entrepreneur selectively apply commercial and social logics?

Dr. Block either chooses not to dwell on social-business tension, or actually experiences little such tension. He does seem to selectively apply commercial and social logics at different times and in different situations, in a nearly-seamless manner.

In the chronology recounted above, this IT-focused social entrepreneur initially focused on local opportunities and locally-focused organizations. He did volunteer medication consultations with parishioners, launched a charitable pharmacy, and helped to pass the state law that now allows

individuals to donate wasted drugs to charitable pharmacies. Yet, his vision scaled quickly and expansively, leading him to found the national consortium of charitable pharmacies and a consortium of health-care providers and institutions that he hopes will scale locally, nationally, and internationally. He also participating in pilot tests conducted by another (much larger) consortium.

Like many successful commercial entrepreneurs, Dr. Block is a gifted communicator and natural networker. He recounts compelling patient and family stories, interleaved with facts about high drug prices and usable medications that could reach needy patients. Is this evidence of compassion as a prosocial motivator (Miller 2013; Wilson & Post 2014) or merely a clever sales pitch? We cannot say. This visionary IT-focused social entrepreneur's talks are sometimes ahead of the facts. For example, since founding DrugsBlock LLC in summer 2018, in numerous presentations and other venues Dr. Block described it as a "blockchain company." Although design was underway and a few demonstration prototypes developed no operational blockchain had been launched by the end of 2019.

Possibly anticipating skepticism about Charmacy's business model, Dr. Block offered an ability-to-pay sliding scale membership fee. He also anticipated potential skepticism if the blockchain only supported donations of expensive cancer drugs (versus high-volume inexpensive wasted drugs (he stated a concern that people might think he was "chasing the money"). He simultaneously considered multiple factors - logistics, sustainability, constituents he could most easily serve versus those in greatest need. He was preoccupied with finding a path to financial viability for Charmacy and profitability for DrugsBlock LLC and the other LLC, but otherwise he expressed little concern about conflicting social and business norms.

Each organization was set up appropriately from a legal and risk-management perspective, yet Dr. Block's comments (such as referring to Charmacy as a "sister organization") imply he thought of them as one collective organization (a hybrid social enterprise). Sometimes when he mentioned "DrugsBlock" we came to realize (to our consternation!) that he was really talking about Charmacy or the other LLC or the local consortium. Sometimes a mention of "Charmacy" referred to something occurring at DrugsBlock. Thus, when speaking with interviewers and journalists about his work, it was with reference to the hybrid social enterprise as if it was a single entity. Yet, when he gave presentations to potential donors or potential investors, he put on the social or commercial "hat" that matched the audience, with (as best we can tell) no evident discomfort in switching perspectives from one to the other.

Conclusion

Consistent with prior studies, Dr. Block confronted and overcame many challenges. Before becoming a social entrepreneur he developed some business capabilities in his ten years as a pharmacist, and he took the initiative to learn how charitable pharmacies and charitable pharmacy wholesalers work. Recognizing the problem of usable medication waste, he researched drug donation laws in other states (e.g., Iowa, California) and successfully lobbied for a new law in his state. He invented a new business model for the charitable pharmacy he co-founded, and refined it over time (such as by developing its capability to accept and authenticate donated "wasted" medications, and redispense them for delivery to needy patients. Seeing an opportunity to profit by building a blockchain-based platform that could support other charity pharmacies or other organizations in the pharmaceutical supply chain, he co-founded two for-profit startups for that hybrid social purpose, as well as two consortia for promoting information-sharing and other forms of helpful collaboration in this space.

Given that this hybrid social enterprise is currently still in a startup phase, it is too early to proclaim "success" – it has not achieved its social mission in any meaningful way -- thus far, but a handful of patients have received donated medicines, and neither of the two for-profit organizations has, as yet, attracted venture capital (nor have they, as yet, failed). Clearly none of the five organizations co-founded by Dr. Block has reached a scale that is sustainable in the long term (although the charitable pharmacy comes closest to achieving that goal).

Despite these limitations, much has been learned in this exploratory case study.

This IT-focused hybrid social startup encountered many challenges, yet (similar to many entrepreneurs), Dr. Block seemed to draw energy from each challenge. And, similar to a case study of a much larger and longer-lived IT-enabled hybrid social enterprise (Richardson et al. 2014), our exploratory case study reveals that agile principles are enacted in this hybrid social enterprise – as can be seen in fast-learn experimentation with innovative business models, processes, and organizational structures and adoption

of agile IT tools and practices (such as open collaboration, open source tools, and a mandate to develop simple and interoperable platforms). Furthermore, we propose that our findings regarding this social entrepreneur's ability to fluidly cycle between commercial and social logics (similar to Khan et al. 2018) point to a form of social/commercial agility that is unique to hybrid social enterprises.

Like many commercial entrepreneurs, pharmacist-turned social entrepreneur Dr. Block had neither management training nor IT training; he is learning on the job. He has encountered some speed bumps on his journey thus far, and his charitable pharmacy continues to rely on grants and loans -- but to a lesser extent today than a few years ago, thanks to improved operational efficiency. This exploratory case study demonstrates that an IT-enabled hybrid social startup applies agile principles in ways that help resolve conflicting social and business goals. We urge AMCIS attendees to conduct further studies about IT-enabled hybrid social enterprises of various sizes and at various stages of maturity in a variety of societal and industrial contexts, via case studies and other research methods.

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