

Organic Development of a Student-Run Accelerator at the University of Michigan

Aileen Huang-Saad, PhD, Assistant Director of Academic Programs, Center for Entrepreneurship
Jason Bornhorst, Student, Computer Science Department
Thomas H. Zurbuchen, Associate Dean of Entrepreneurial Programs, College of Engineering
Tony Grover, Managing Director, RPM Ventures
Marc Weiser, Managing Director, RPM Ventures

Abstract

The nearly exponential growth of the entrepreneurial community at University of Michigan (U-M) is largely attributed to the students themselves. In January 2008, U-M launched the Center for Entrepreneurship (CFE) to support these students. Through these and other similar efforts, entrepreneurial students of like mind on a campus of nearly 40,000 can network, share ideas, and pursue their ventures. By January 2009, seven students actively involved in their own projects joined together to find ways to share resources and ideas to accelerate the launch of their ventures. This resulted in the launch of a student-run business accelerator, TechArb (www.techarb.org). The seven founders secured real estate in downtown Ann Arbor and invited thirty-five entrepreneurial-minded students, representing seven companies in the music, technology, and biotech industries, to benefit from this accelerator. This paper describes a student-initiated entrepreneurial facility and program at the University of Michigan. It has eleven successful project teams so far. This paper discusses the genesis and impacts of the first U-M student accelerator, and the plans for its continuation.

Introduction

In January of 2007, the University of Michigan College of Engineering (U-M COE) convened a committee to focus on the opportunities for student entrepreneurship and the existing obstacles to the effectiveness of the “entrepreneurial ecosystem.” The Committee on Entrepreneurial Environment & Programs for Students (CEEPS) arose, in part, from student interest in entrepreneurship and the recognition that innovation and entrepreneurship knowledge can help U-M students differentiate themselves in the global economy. Following a series of town hall meetings, interactions with numerous U-M alums, and an inspirational trip to the California Bay Area, the CEEPS committee generated a report that described the content of an entrepreneurial student program and made a series of recommendations that could be used to implement a program focused on student empowerment, to enable students’ ambitions in both academia

and venture acceleration. In keeping with the recommendations of the committee, U-M COE established the Center for Entrepreneurship (CFE) in January 2008, creating a hub for developing an entrepreneurial ecosystem through both curricula and co-curricular activities.

Background

In its first four months, the CFE established a nine-credit academic program in entrepreneurship and began developing the U-M entrepreneurial ecosystem through numerous collaborations with supporters of entrepreneurship at U-M and beyond. While the academic program was critical, it was clear that students were not only interested in learning about entrepreneurship, but were also interested in experiencing it as well. Many students already wanted to launch their entrepreneurial ventures sooner rather than later. Hence, one of the primary supporters of the CFE, RPM Ventures, enabled an accelerator summer program for U-M students in 2008, the RPM₁₀ program, through a donation to the CFE. RPM₁₀ gives students a ten-week, real-world experience of starting a company, exposing them to all aspects of a seed-stage startup and providing them with the support of experienced mentors, including venture capitalists, entrepreneurs, and technologists. Students learn how to overcome legal challenges, how to establish company founders, and how to find investors, develop business plans, develop prototypes, and pursue long-term fundraising. Through these experiences, students not only learn whether they are in fact interested in pursuing a career with a start-up venture, but also gain the tools necessary to learn, succeed, and fail quickly so that they will be faster and better in the future.

The RPM₁₀ Program: Entrepreneurship as the New Internship

RPM₁₀ is a ten-week real-world “internship” for three University of Michigan student entrepreneur teams. Teams are selected according to specific criteria: they must be focused on solving substantial problems that the students can identify with intimately; they must have a deep understanding of the end users/ customers and have a passion for both the problem and its solution; and they must have confidence that the problem can be solved simply and elegantly with technology that can be delivered by the team. In addition, the outcomes must be technology-based products or services that can be widely adopted. Regardless, the businesses must also have low capital needs.

Teams receive up to \$20,000 per team in startup funds for team salaries, equipment purchases, hosting services, and other prototype development costs to launch a company and deliver a working prototype during the summer. At the end of the summer, the student teams present to a panel of venture capitalists, angel investors, and entrepreneurs during a “Demo Day” where products are unveiled and follow-up funding requests can be made.

In addition to the startup funds, winning teams also receive free office space, free financial support (to handle budgeting, payroll, purchasing, and bank accounts), free legal services (to handle company formation, founders’ agreements, etc.) and startup coaching (regular weekly training sessions and ad hoc interaction with RPM Ventures and outside mentors and advisors). RPM Ventures takes a small equity stake in the companies in exchange for its support, services, and program management.

In its first year, three student teams were supported by RPM₁₀, operating their businesses out of an office co-located with RPM Ventures. The co-location of the teams fostered a strong community between the student teams themselves and the network of local entrepreneurs and mentors supporting the students. Students not only learned valuable concepts from their mentors, but also learned from their peers as well.

The cross-fertilization of ideas only stimulated more excitement among the participating teams, leading to the genesis of Maize Ventures.

Maize Ventures: A Student Organization of Founders

A number of the participants in the first iteration of RPM₁₀ identified the need for a community beyond the ten-week duration of the program. In particular, students wanted to learn more about and from other student companies and find ways to share resources and human capital, thus sharing skills between companies to ensure continued success. Also, students wanted attract other student companies and serve as a resource and community beyond the initial RPM₁₀ group. The initial founders and rapidly growing Maize Ventures organization gathered through informal meetings, coupled with members' participation in entrepreneurship classes offered by the Center for Entrepreneurship. As of the beginning of September, Maize Ventures consists of twenty-two members representing thirteen companies.

TechArb Overview

After its foundation, Maize Venture members were searching for ways to maintain their momentum and co-locate their businesses together with the 2009 version of the RPM₁₀ program. With this goal in mind, Maize Ventures approached RPM Ventures and proposed co-locating the second class of RPM₁₀ teams with Maize Ventures teams.

With the support of RPM Ventures, a local real estate firm in Ann Arbor, and the CFE, the student companies established TechArb, a student-run accelerator. During the summer of 2009, TechArb was located in the basement of a building in downtown Ann Arbor, provided at no cost. Students were granted a three-month trial period with this space and were responsible for providing the furniture and internet connections. Each student contributed \$70 for furniture, internet, and power. Students also adhered to a "BYOC" policy—bring your own chair. The space consisted of one large open area, one conference area, and four individual offices. Furthermore, students had full 24-hour access. While RPM₁₀ only financially supported three teams, all of the students in TechArb were able to attend the RPM₁₀ lecture series. Each week, RPM Ventures sponsored a topic-specific seminar that was meant to support the students in their development, covering topics listed in Table 1.

TechArb also institutionalized a program referred to as "Feedback Fridays," an "open mic" program that allowed each company to share their progress and receive feedback on new projects from their TechArb colleagues and community mentors.

Overview of entrepreneurial experiences
Accounting overview
Software development methodologies
Project management
Innovation
Intellectual property
Entrepreneurial lessons learned
Search engine marketing
State funding and resources for early stage tech startups

Table 1. Summer 2009 RPM₁₀ Lecture Series Topics

Results

Eleven student ventures (described in Table 2), representing thirty-five students, joined and operated out of TechArb during the summer of 2009. As mentioned in Table 2, student ventures represented the music

industry, software, and biotech. The number of companies grew during the entire summer entirely by word of mouth—no money was spent on advertising. By the end of the summer there was a waiting list of four companies, representing twelve additional students. Interestingly enough, TechArb students represented various schools across the campus (Figure 1). In addition, TechArb participants were supported by a total of \$187,000 from various sources from within the University of Michigan and beyond (Table 3).

TechArb Student Ventures	Business
Mobil33t (\$0)	Mobil33t develops iPhone applications. Their first product, DoGood, was featured in <i>Fortune</i> and <i>The New York Times</i> . DoGood is a free iPhone / iPod downloadable application that prompts the user to do something good for a stranger, with the idea that the stranger will pass it on. The application is also accessible on Facebook. The future direction of the company may include an expansion of their applications to Blackberry and Palm Pre.
Carrier Mobile (\$5K)	Carrier Mobile develops mobile-phone-based software applications for common problems faced by North American truck drivers. The software allows drivers to automatically log driving hours. Carrier Mobile is funded the RPM Ventures' Internship Program, RPM ₁₀ , and the Ann Arbor SPARK incubator.
Roomations (\$14K)	Roomations is an online design and construction consultation service for do-it-yourself home improvement. It gives homeowners access to virtual interior design services prior to starting their remodeling project. Roomations received funding from Ann Arbor SPARK and the ZLI Marcel Gani Internship Program. Roomations has brought in just under \$10,000 in cash and approximately \$15,000 in marketing and brand-identity services.
Phonagle (\$20K)	Phonagle develops mobile games that use the real world as a game board. The company is funded by RPM Venture's Internship Program, RPM ₁₀ .
Shepherd Intelligent Systems (\$28K)	Shepherd Intelligent Systems develops real-time transportation software. They provide real-time tracking and arrival prediction technology for public transportation companies to increase ridership and customer satisfaction. The company consists of two founders and four employees, targeting college towns as a launching ground for a broader use of the application. Shepherd Intelligent Systems is funded by the RPM Venture's Internship Program, RPM ₁₀ , and Ann Arbor SPARK.
CrowdClarity (\$27K)	CrowdClarity was created to address the growing need for a proper sales forecasting solution. The founders realized that many companies of all sizes do not have effective formal sales-forecasting tools. Many companies' managers set sales goals and incentives with limited market knowledge, only to find themselves scrambling partway through the month or quarter to make up for a sales deficit. The founders believed that these companies could achieve greater forecasting success if they harnessed the combined knowledge of their employees to set and fine tune sales goals and incentives early and often during the sales period. Harnessing the power of the wisdom of crowds, CrowdClarity implements prediction markets and other information aggregation tools to deliver quick and accurate information to decision makers. CrowdClarity is funded by the MORE Program, the ZLI Dare to Dream Grant Program, and the Center for Entrepreneurship.

Backyard Brains (\$47K)	Backyard Brains is creating new technology that allows for an interactive learning experience for junior high, high school, and undergraduate students. These entry-level Brain Recording Kits will enable the general public to gain a basic understanding of how the brain works. Backyard Brains is funded by the ZLI Dare to Dream Grant Program and the Kauffman Foundation Post-Doctorate Program.
The Wojo Group (\$0)	The Wojo Group is a website software development firm. One of their products is simplecart-js, a 20kb PayPal shopping cart application.
MyBandStock (\$20K)	MyBandStock is home to The Music Revolution™, an online community where artists sell shares to their fan base in exchange for access to their music, videos, blogs, and other personal benefits in order to raise money for album production. MyBandStock is funded by the ZLI Marcel Gani Internship Program, The ZLI Dare to Dream Grant Program, and Ann Arbor SPARK.
QuazieCode (\$0)	QuazieCode specializes in map-based applications, building on open-source map packages to provide users with both interesting and entertaining experiences on the iPhone. Though they specialize in maps, they are not mapping-exclusive; QuazieCode also creates applications that focus around improving the user's daily life, from more knowledge about the local weather to what is going on in the community.
Troubadour Mobile (\$25K)	Troubadour Mobile is a mobile software company. The company develops new, fun ways for people to use their iPhones and iPod Touches to quickly connect with family and friends around the globe. At Troubadour Mobile, they value design based on user research for elegant, easy-to-use products and pushing the limits of the iPhone platform. Troubadour Mobile is funded by the RPM Ventures Internship Program, RPM ₁₀ .

Table 2. TechArb Student Ventures

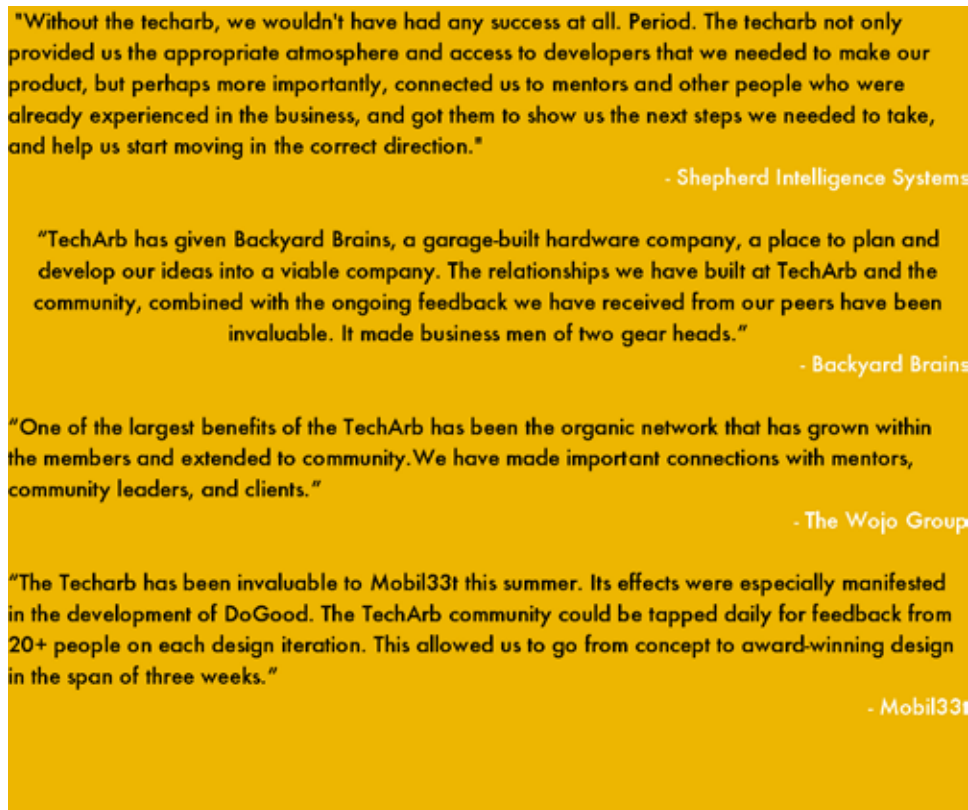


Figure 1. Disciplines of TechArb Students

TechArb Funding
MORE Program (\$11,500)
Dare to Dream: An idea competition by the ZLI and CFE (\$22,000)
Marcel Gani Internship: A ZLI entrepreneurial internship competition (\$13,095)
Michigan Business Challenge: A ZLI business plan competition (\$2,200)
RPM ₁₀ Program: The CFE entrepreneurship competition (\$70,000)
Kauffman Post-Doctoral Fellowship (\$45,000)
SPARK: An Ann Arbor-based business accelerator (\$16,800)
Center for Entrepreneurship: Modest support of specific tasks (\$6,000)

Table 3. TechArb Funding Sources

Impact

During the ten weeks, TechArb opened its doors to thirty-seven students, received twenty-one press mentions, produced one live iPhone application, and produced one music video. Four more mobile applications were in development. The live iPhone application, DoGood (Mobil33t, LLC), which encourages users to commit a specific good deed each day, became wildly successful. In just over one month from release, the application had been downloaded by almost 43,000 iPhone users and was featured in *Forbes* and *The New York Times*.

Many students participating in the inaugural TechArb iteration described this experience as life changing (see testimonials in Figure 2). TechArb has been described as a “Student-run incubator [which] hopes to breed next wave of tech moguls” by *Crain’s Detroit Business*, and, “An entrepreneurially contagious environment where students from across disciplines can work to launch their companies” by Katie Miller. Since many logistics such as office space, internet, and phone are already provided, student companies can get to work quickly, giving the student enterprise a nice niche in the University of Michigan entrepreneurial community.

Lessons Learned

Companies and individuals participating in the experiment this summer were successful on a multitude of levels. They formed new business relationships, received feedback on proprietary web applications, and earned valuable press mentions. They attribute the successes to two overarching characteristics that TechArb provided:

Alternative work environment

- Free of distraction: A college dorm is not the most ideal place for meeting with clients, designing applications cooperatively, or having an important conference call at 1:30 AM on a Friday night.
- Attitude: Having a place to work that students can call their own, aside from where they sleep, opens up a whole new frame of mind for productivity, goal setting, and detail-oriented thinking.
- 24/7 access: Some of the best work gets done before the sun rises on the weekend. This is imperative for any student incubator.
- Comfort: The students who created TechArb made it their own. They should be free to arrange workspaces, have refrigerators, play Frisbee, etc. These seemingly frivolous details are what make workplaces unique and fit for productivity needs.
- Conference rooms/offices: Individual space, in addition to group collaborative environments, is essential for big meetings, conference calls, and everyday privacy needs.

Entrepreneurial community

- Group meetings: Feedback Fridays at TechArb allowed students to share their successes for the week and reflect on their work. Hearing about other companies' objectives and operations was empowering and essential to understanding each other.
- Guest speakers: Patent attorneys, software CEOs, angel investors—hearing from experienced entrepreneurs (or from people important in creating success) was empowering. In addition, these speakers may be directly involved with fields that students are working in, which adds even more value.

Going Forward

At the end of the summer, the TechArb entrepreneurs and RPM Ventures presented U-M with a proposal to make TechArb an official collaboration with the university. With the impromptu experiment, it became evident that a student accelerator, such as TechArb, can be a critical part of the education of our entrepreneurial students, enabling the advancement of their ideas in the broader U-M community. The characteristics of this success are:

- 1) An enabling space for student companies to run and operate.
- 2) Financial tools to support specific steps and to get the companies over critical hurdles.
- 3) A critical size entrepreneurial hub in the close vicinity of students' lives (i.e., creating an entrepreneurial beehive).
- 4) Direct connection to the broader entrepreneurial community and support personnel.

In seeing the value that was generated, U-M agreed to support a two-year pilot program. The students were granted a new space on the fourth floor of an adjacent building, allowing companies to carry momentum into the school year.

Conclusions

There are many characteristics of a typical student accelerator that TechArb proved to be superfluous. We recognized, for example, that there is no need for high-quality furniture and well-modeled living space. In fact, autonomy is desired much more than high-quality equipment. We also found that the monies needed are much more of the order \$5k than \$50k for our student companies. This has an important caveat: 80% of the companies in TechArb do not have strong laboratory or prototyping needs and only future experience will show whether this funding range remains valid. Similarly, coordinating staff is highly helpful, but specialty knowledge and mentorship can be obtained from a broad mentorship network and does not have to be part of the plan.

The Center for Entrepreneurship is now taking these lessons and moving TechArb forward, in collaboration with the Zell-Lurie Institute (ZLI), for a two-year period. In contrast to the summer experiment, the University of Michigan will provide some staff support for the coordination of educational and entrepreneurial objectives that are desired. This two-year experiment will focus on two overall objectives. First, it will develop methods by which students from multiple backgrounds can integrate entrepreneurial experiences into their educational programs. Second, it will develop methods and processes to move TechArb companies toward entrepreneurial success. The TechArb location will benefit from close vicinity to Ann Arbor SPARK, the business accelerator of the Ann Arbor area, as well as entrepreneurial support systems such as IP attorneys.

Other than that, the continuation of TechArb will be organized according to the principles and lessons described in this paper. In the future, TechArb seeks to become a highly entrepreneurial center for all students at the University of Michigan—a center whose successes are founded on the creativity and energy of its participating students, and lean and targeted tools and support mechanisms that allow these students to achieve their entrepreneurial dreams.