Technology Innovation Management Review

October 2012

Credit: NASA

# *Born Global*

Welcome to the October 2012 issue of the *Technology Innovation Management Review*. The editorial theme of this issue is Born Global. We invite your comments on the articles in this issue as well as suggestions for future article topics and issue themes.



Carleton UNIVERSITY

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## Overview

The *Technology Innovation Management Review* (TIM Review) provides insights about the issues and emerging trends relevant to launching and growing technology businesses. The TIM Review focuses on the theories, strategies, and tools that help small and large technology companies succeed.

Our readers are looking for practical ideas they can apply within their own organizations. The TIM Review brings together diverse viewpoints – from academics, entrepreneurs, companies of all sizes, the public sector, the community sector, and others – to bridge the gap between theory and practice. In particular, we focus on the topics of technology and global entrepreneurship in small and large companies.

We welcome input from readers into upcoming themes. Please visit timreview.ca to suggest themes and nominate authors and guest editors.

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Contribute to the TIM Review in the following ways:

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# Editorial: Born Global

Chris McPhee, Editor-in-Chief
Tony Bailetti, Guest Editor

## From the Editor-in-Chief

The theme of this month's issue is *Born Global*. It is my pleasure to welcome **Tony Bailetti**, Director of Carleton University's Technology Innovation Management program (TIM; carleton.ca/tim), as guest editor for this issue.

With this issue, the TIM Review celebrates its first birthday! In October 2011, this journal was re-launched as the *Technology Innovation Management Review*. The TIM Review replaced the *Open Source Business Resource*, which was launched in July 2007.

In celebrating this milestone, I wish to thank our readers, authors, guest editors, reviewers, advisors, and sponsors for their contributions to our success so far. Last month, we surpassed the threshold of 5,000 unique visitors per month, which brings us halfway to our target of 10,000 (timreview.ca/article/569). We welcome your suggestions for building on the growth we have achieved so far.

Given the theme of this month's issue, I thought it would be fitting to share some data about the global reach of the TIM Review. Figure 1 shows the geographical distribution of visitors to our website during the past year. Readers from outside our domestic market (Canada) accounted for 71% of all visits. These readership numbers reflect both the diversity of our authorship and the broad appeal of their articles. It is very encouraging that we have been successful in our internationalization efforts. In our second year under the banner of the TIM Review, we will maintain our focus on increasing readership by producing high-quality content of relevance to global entrepreneurs worldwide.

In November and December, we will be publishing research and insights from local and global authors who will emphasize the practical applications of their work.

As always, we welcome your feedback, articles, and suggestions for future themes. We hope you enjoy this issue of the TIM Review and will share your comments online. Please also feel free to contact us (timreview.ca/contact) directly with feedback or article submissions.

**Chris McPhee**
**Editor-in-Chief**

## From the Guest Editor

Welcome to the October 2012 issue of the TIM Review titled *Born Global*.

Happy first birthday TIM Review! We thank the journal's readers and international network of authors, guest editors, reviewers, advisors and sponsors for their many contributions. Special thanks go to Chris McPhee, the journal's Editor-in-Chief, who has tirelessly led hundreds of us to improve the journal.

The TIM Review is the result of a conscious decision to build a journal that provides free and unlimited online access to high-quality articles about technology and global entrepreneurship. The online articles published in the TIM Review are the "common assets" that enable individuals and organizations to collaborate, continuously innovate, and explore new topics for the purpose of benefitting entrepreneurs worldwide.

The launch of the TIM Review a year ago was followed by a call to make the TIM Review the leading journal in technology entrepreneurship and global entrepreneurship. The response to this call worldwide has been overwhelming. I am delighted to learn that the number of unique visitors exceeds 5,000 per month and that more than 50% originate from outside of the Americas (Figure 1).

The Born Global issue of the TIM Review focuses on providing entrepreneurs with the knowledge, approaches, methods, and tools they need to globalize

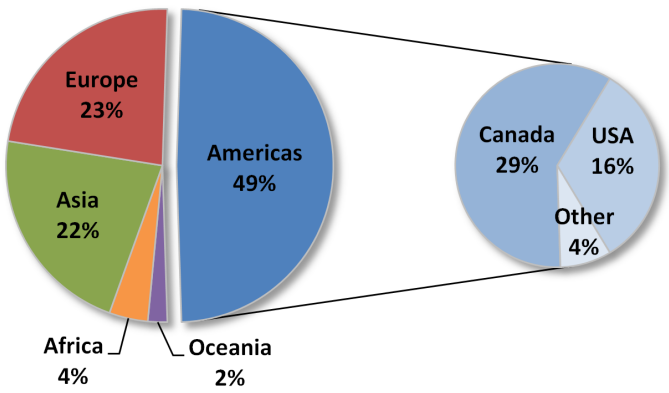


**Figure 1.** Global distribution of visitors to timreview.ca

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*Chris McPhee and Tony Bailetti*

their startups early and rapidly. The October issue includes five articles and a report on a recent TIM Lecture. The five articles provide: i) lessons for global entrepreneurs, ii) information on decisions made by entrepreneurs in 12 countries that led the globalization of their firms during their early stages, iii) examples of tools that can be used to globalize a startup, and iv) recommendations on the mindset change required to launch and grow a global startup. The report summarizes the eighth lecture of the 2012 TIM Lecture Series titled "Growing a Global Company Anchored on Open Source Software", presented by **Fred Dixon**, CEO of Blindside Networks and contributor to the BigBlueButton open source project, on September 13, 2012.

In the first article of the October issue, I first provide lessons that have been extracted from six literature streams and from information on 21 startups founded in 12 countries and then identify the six elements that a startup must get right to globalize early and rapidly. The main contribution of this article is that it throws the spotlight on the need to develop prescriptive rules and practitioner-oriented models that can help a technology startup operate globally from an early stage.

**Elnaz Heidari**, **Mohsen Akhavannia**, and **Nirosh Kannangara**, graduate students in Carleton's Technology Innovation Management program, analyze how three small firms use crowdsourcing and discuss the benefits of crowdsourcing. This article contributes recommendations for technology entrepreneurs who are interested in using crowdsourcing to rapidly internationalize their startups from inception.

**Tony Maltby**, an entrepreneur and a graduate student in Carleton's Technology Innovation Management program, examines entrepreneurs' use of online social media networks to rapidly internationalize their startups from inception. This article contributes to the development of a learning-based view of rapid internationalization from inception by recognizing that entrepreneurs can use social media to amplify their tacit knowledge and convert it into sellable products and services.

**Robert Poole**, a serial entrepreneur, co-founder of FreebirdConnect, chartered accountant, and alumnus of Carleton's Technology Innovation Management program, describes the mindset change that an entrepreneur must make to move from the conventional staged approach to the born-global approach. This article contributes recommendations on the mindset change required for entrepreneurs to use the born-global approach to launch and grow their technology companies.

**Simar Yoos**, an experienced entrepreneur and graduate student in Carleton's Technology Innovation Management program, examines the channels used by six startups that internationalized rapidly from inception as well as the programs they used to support their channel partners and customers. The main contribution of this article is that it informs entrepreneurs who need to design go-to-market channels about decisions made by other entrepreneurs who launched born-global companies.

It is our hope that you, your colleagues, and your organizations benefit from reading this issue of the TIM Review.

**Tony Bailetti**
**Guest Editor**

## About the Editors

**Chris McPhee** is Editor-in-Chief of the *Technology Innovation Management Review*. Chris holds an MASc degree in Technology Innovation Management from Carleton University in Ottawa and BScH and MSc degrees in Biology from Queen's University in Kingston. He has over 15 years of management, design, and content-development experience in Canada and Scotland, primarily in the science, health, and education sectors. As an advisor and editor, he helps entrepreneurs, executives, and researchers develop and express their ideas.

**Tony Bailetti** is an Associate Professor in the Sprott School of Business and the Department of Systems and Computer Engineering at Carleton University, Ottawa, Canada. Professor Bailetti is the Director of Carleton University's Technology Innovation Management program (carleton.ca/tim). His research, teaching, and community contributions support technology entrepreneurship, regional economic development, and international co-innovation.

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# What Technology Startups Must Get Right to Globalize Early and Rapidly

Tony Bailetti

> *"Do not confine your children to your own learning, for they were born in another time."*
>
> Chinese proverb

Upon or shortly after inception, growth-oriented technology startups must operate in a market that is global. Management teams and investors of technology startups can benefit from approaches and models that can help them operate in a global market early and rapidly. How well a technology startup addresses the realities of globalization will determine its success. A better understanding of what management teams and investors of technology startups must get right to globalize their startups is needed. This article is an attempt to meet this need.

In this article, lessons that have been extracted from six literature streams and from information on 21 startups founded in 12 countries are used to identify the six elements that a startup must get right to globalize early and rapidly. These six elements are: i) Problem scope, ii) Stakeholders' commitments, iii) Collaborative entrepreneurship, iv) Relational capital, v) Legitimacy, and vi) Global capability. The main contribution of this article is that it throws the spotlight on the need to develop prescriptive rules and practitioner-oriented models that can help a technology startup operate globally from an early stage.

## Introduction

What must a management team get right to globalize a technology startup early and rapidly? How can a management team fill the gap between their startup's need to successfully operate in a globally integrated market and their startup's lack of resources and skills?

Technology startups that globalize early and rapidly will win over those that do not. The earlier a startup globalizes, the stronger will be its capability for exploiting growth-seeking opportunities worldwide. Early globalization increases a company's adaptability to uncertain environments and its willingness to change (Sapienza et al., 2006; tinyurl.com/8exd7hq). Managers globalize a technology startup early and rapidly to: i) increase the value of the startup, ii) reduce revenue source risks, and iii) increase the size of the startup's addressable market.

Over the last 20 years, scholars have contributed various perspectives to explain the early and rapid involvement of startups in international markets. However, conventional approaches used to globalize technology startups take too long, cost too much, increase stakeholders' risks, and waste the passion of many talented people who develop innovative products and services. It is therefore time to help managers of technology startups meet the demands of global markets early and rapidly.

The objective of this article is to help the management teams of technology startups and their investors to identify what they need to get right to globalize their companies (i.e., address the needs of a global market), early and rapidly. The article provides a set of key messages extracted from the literature, and it develops six elements (i.e., building blocks) into a unified model on how to globalize new technology ventures early and rap-

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idly. In addition to entrepreneurs, management teams, and investors, academics, service providers, managers of economic development organizations, and policy makers can also benefit from a better understanding of the implications that these approaches and models have for the ways in which they currently support regional and local economic development.

For the purpose of this article, internationalization refers to the process by which a company increases its involvement in cross-border markets via exporting, licensing, partnerships, joint ventures, direct foreign investment, or other means. Globalization refers to the process by which a company meets the needs of a global market, one which integrates many formerly domestic markets including the company's home market. A global market is the result of nation-states breaking down barriers to international trade, shifts to market economies, mobility of talent and capital, and advances in transportation, information, and communications technology.

Messages that were extracted from six literature streams are presented and then applied to the globalization of startups. These messages are targeted at management teams and investors. Next, the method used to identify startups that grew foreign sales early and rapidly is described and the results of applying the method are provided. Then, three lessons learned from examining the publicly available information about the startups in the sample are discussed and the elements of the architecture for rapid globalization are proposed. The last section provides the conclusions.

## Messages from Examining the Literature

The scholarly work most relevant to a startup's early and rapid globalization can be organized into six literature streams:

1. Rapid internationalization

2. International new ventures

3. Effectuation logic

4. Global startups

5. Gradual internationalization process models

6. Internalization theory of the multinational enterprise and the ownership-location-internalization (OLI) model

For each of the literature streams, the following subsections provide a summary, identify key publications examined, and contribute key messages for management teams and investors of technology startups extracted by the author from his examination of the literature. Appendix A provides the references examined to extract these lessons learned.

*Stream 1: Rapid internationalization*
Contributors to the rapid internationalization literature stream seek to identify the factors that affect: i) time before starting to internationalize (e.g., first export, license, foreign direct investment, or joint venture), ii) percentage of foreign sales at a given age, and iii) number of countries or regions in which the company operates at a given age.

The key messages of the rapid internationalization literature stream for the management teams and investors of startups include:

1. Define and act on what can be achieved using the means that are available to the startup (e.g., personal contacts, international experiences) and collaborate with others.

2. Proactively leverage new and existing networks to locate and interact with potential international customers and partners.

3. Secure commitments to act jointly and quickly, develop new knowledge, and increase relational trust with partners in lead markets who have technology knowledge that overlaps with the startup's technology knowledge.

4. Collaborate and partner with well-established system integrators and distributors that offer global reach and low risk of channel conflicts.

5. Select large customers with global reach whose requirements can be satisfied quickly.

6. Build and leverage relationships with customers, suppliers, and partners – and a large and diverse number of members of their networks – then, quickly deliver value to them.

7. Use the Internet to market the startup's products and services.

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8. Increase legitimacy by: i) establishing presence in key markets, ii) gaining high-profile endorsements from established local companies, iii) leveraging mentors and advisors to build an ecosystem around the startup, and iv) participating in high-profile activities related to direct foreign investment.

9. Develop knowledge-intensive products and build strong capability to market and sell them.

10. Leverage the network of relational capital associated with the startup's management team and ensure that the network members are committed to assisting with early and rapid internationalization.

11. Increase the startup's i) social capital; ii) ability to acquire, assimilate, transform, and exploit external knowledge; and iii) knowledge (i.e., the content of what is learned).

*Stream 2: International new venture*

The international new venture literature stream seeks to explain the start of the internationalization process, not how internationalization proceeds once it has started. Contributors to this literature stream argue that gradual internationalization processes do not fully explain the early and rapid internationalization of startups. Contributors to this literature stream focus on the entrepreneur's role in launching and growing a multi-country enterprise.

The key messages of the international new venture stream for the management teams and investors of startups include:

1. Lock the startup into a global growth path from its inception. Internationalize early to concurrently increase the startup's value, develop capabilities to grow globally, and reduce revenue source risks.

2. Leverage what was learned servicing previous markets when entering a new foreign market.

3. Increase the entrepreneur's international competences, vision, risk tolerance, cross-border networks, and awareness of foreign growth opportunities.

4. Create value through cross-border resource combinations.

5. Invest in increasing the knowledge-intensity of the startup's resources and embed the startup in the system that creates the knowledge that is critical to its success.

6. Avoid internalizing all the resources required to expand internationally; use governance mechanisms such as those found in joint ventures or licensing agreements to acquire the resources needed.

*Stream 3: Effectuation logic*

Contributors to the effectuation logic literature stream apply the effectuation theory developed by Sarasvathy (2001: tinyurl.com/cmjpnxg; 2008: tinyurl.com/c2zknnj) to examine companies early in their internationalization process and the entrepreneurs decision regarding internationalization.

The effectuation logic differs from causation logic. According to Sarasvathy (2001, tinyurl.com/cmjpnxg), causation logic means that the end is given and the focus is on selecting the means to achieve the end. Effectuation logic means that the means are given and the focus is on what can be achieved with them.

Effectuation questions the traditional neo-classical economic assumptions of how individuals think and behave when starting a business (Perry et al., 2011; tinyurl.com/cs56bcb). Effectuation theory offers to better explain why startups internationalize early and rapidly despite lacking information on the host market, international experience, and resources. Effectuation examines early and rapid internationalization of startups at the individual, company, and network levels.

The key messages of effectuation theory applied to the study of startups that internationalize early include:

1. Behave as if causation and effectuation logics are not two opposite concepts; for example, effectuation logic can be used to explore opportunities, whereas causation logic can be used to exploit opportunities.

2. Use effectuation logic to identify opportunities with foreign actors when resources are lacking.

3. Using causation logic to create international new ventures primarily results in export-type entry modes, not equity-type entry modes.

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4. Using effectuation logic to create international new ventures results in multiple entry modes.

5. Once the business grows and the number of foreign partners increases, causation logic should be used rather than effectuation logic, even when the startup is still small.

6. Use causation logic to overcome psychic distance (tinyurl.com/8huqvhk).

7. Acquisition of global knowledge and international experience can follow internationalization; it does not have to precede it.

8. Selection of markets to enter is not controlled by psychic distance or cultural differences.

9. Entry strategies based on an entrepreneur's knowledge, links to foreign markets, and cooperative arrangements with network partners do not necessarily require formal market research to be carried out by the startup itself.

*Stream 4: Global startups*
The literature on global startups – organizations designed to operate in a globally integrated market from inception – is emerging. It focuses more on innovating by learning from the world than on building an efficient network of production, sales, and subsidiaries that can penetrate markets around the world.

The key messages for the management teams and investors of startups include:

1. Engage in the exchange of knowledge, information, and other resources with international contacts to recognize and exploit opportunities on the global market.

2. Create value by searching out and mobilizing untapped technology and market knowledge scattered around the world.

3. Adjust to changes in knowledge required during the global startup process in terms of classification, function, network composition, and interaction patterns.

*Stream 5: Gradual internationalization process models*
The product-operations-market (POM) model and the Uppsala model explain how the internationalization process proceeds after it has started. These two models were developed by examining how companies with an existing history gradually intensify their activities in foreign markets. Entry into foreign markets is an incremental process that starts late in a company's life cycle; early internationalization increases the probability of company failure.

The key messages of the gradual internationalization process models literature stream for the management teams and investors of startups include:

1. Enter foreign markets only after gaining experience operating in the domestic market and acquiring knowledge about the targeted foreign market.

2. Once ready to go global, shed domestic rigidities for the purpose of exploiting global opportunities.

3. Expand internationally to learn about foreign markets as well as the startup's own internal capabilities.

4. Investments made in one region cannot easily be deployed in other regions.

5. Distinguish between specific foreign-market knowledge and general knowledge on how to internationalize.

*Stream 6: Internalization theory of the multinational enterprise and the OLI model*
Internalization is a general principle that explains where the boundaries of organizations (e.g., geographical, product-related, cultural) lie and how they shift in response to changes in conditions. Its application to multinational enterprises is just one of many applications of the internalization principle. The principle of internalization itself is based on transaction-cost theory, which states that transactions are made within an organization if the transaction costs on the free market are higher than the internal costs (Buckley and Casson, 2009; tinyurl.com/9coq99s).

The ownership-location-internalization (OLI) model brings together several theories of international economics into one approach to explain exports, foreign direct investments, and licensing.

The key messages of internalization theory include:

1. The uni-national company is simply a special case of the multinational company; the size of the uni-national company is limited by the size of the home market.

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2. Invest in the creation of new knowledge and the commercial applications of new knowledge.

3. Locate each activity where it results in the lowest cost including the costs of linking it into other activities.

4. Expand into foreign markets where the incremental benefits of further internationalization offset the incremental costs.

The key messages of the OLI model are:

1. Leverage, shape, and create ownership, location, and internalization advantages. Ownership advantages can be derived from reputation, trademarks and patents, production processes, specialized skills, and returns to scale. Location advantages refer to a region's advantages due to the existence of raw materials, low wages, special taxes, etc. Internalization advantages refer to advantages gained when the company undertakes the activity internally instead of externally via partnership arrangements.

2. Link internal strengths with external opportunities.

3. Decisions to expand abroad rather than domestically are determined by the opportunities identified by top managers and their links to the startup's ownership advantages.

4. Decisions about foreign locations in which to establish value-added activities are determined by the perceived match between opportunities and the advantages of the location.

5. Growth through foreign expansion is driven by the availability of excess resources and services they provide.

## Propositions for Globalizing a Technology Startup Early and Rapidly

The lessons learned from examining the literature can be applied to the globalization of technology startups from inception. These lessons can be organized in terms of what managers need to do to globalize a technology startup early and rapidly, as follows.

*1. Acquire and deploy knowledge quickly*
To globalize early and rapidly, a technology startup requires knowledge about: i) a problem and its solution that are important to a large and growing number of foreign and domestic organizations; ii) a global market; and iii) how to globalize. We reason that, to acquire and deploy this knowledge quickly, managers of a startup need to: i) embed the startup in the systems that create the knowledge that is critical to its success; ii) engage in the exchange of knowledge, information, and other resources with international contacts; and iii) adjust to changes in knowledge required in terms of knowledge classification, function, network composition, and interaction patterns

2. Secure commitments to act jointly and quickly

There are five ways to secure stakeholders' commitments to act jointly and quickly. First, the managers of the startup need to interact with customers and partners in lead positions in the global market who have technology knowledge that overlaps with the startup's technology knowledge. Second, the startup needs to search out and mobilize individuals and organizations with specialized knowledge that are scattered around the world. Third, managers need to develop a vision for the commercialization of knowledge-intensive, novel, and differentiable products. Four, the startup needs to quickly deliver value to potential customers and partners. Fifth, the startup needs to target large customers and partners with global reach whose requirements can be satisfied quickly and expose the startup to low risk of channel conflicts

*3. Use the Internet*
A few studies suggest that a startup should use the Internet to market the startup's products and services. Etemad, Wilkinson, and Dana (2010; tinyurl.com/dytugq2) consider the Internet as the necessary condition for internationalization. The Internet provides collaboration tools, payment mechanisms, a foundation for building and delivering products, and many other value-creating processes.

*4. Build relational capital*
The literature suggests that the relationships humans have are a more important capital to the startup than the humans themselves. Strong relational capital increases collaboration with others. To build relational capital, the literature suggests that the startup's management team should proactively leverage new and existing networks to locate and interact with potential customers, partners, and suppliers.

*5. Gain legitimacy*
The literature suggests that the startup should increase legitimacy by: i) establishing presence in key markets, ii) gaining high-profile endorsements from established

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companies, iii) leveraging mentors and advisors to build an ecosystem around the startup, and iv) participating in high-profile activities related to direct foreign investment.

*6. Strengthen global capability*
To strengthen capability to service customers and partners regardless of where they are located, the literature suggests that managers need to: i) link the internal strengths of the startup directly with the definition and exploitation of global opportunities; ii) increase their global competences, vision, risk taking, cross-border networks, and awareness of foreign growth opportunities; iii) leverage, shape, and create ownership, location, and internalization advantages; and iv) shed domestic rigidities for the purpose of exploiting new global opportunities.

## Identifying Startups that Increased Foreign Sales Early and Rapidly

Researchers have used various criteria to find startups that increased their sales early and rapidly (Gabrielsson and Kirpalani, 2012; tinyurl.com/cnmtekt). The criteria used in this article focused on two dimensions of internationalization: company precocity (time before first sale) and company speed (percentage of foreign sales at a given age). We were not concerned about the startups that were large-company spinoffs or joint ventures of large companies; thus, they were excluded.

To be included in the sample, a startup had to meet the following criteria:

1. Founded between 2002 and 2009

2. First foreign sale in the first year of operations

3. Foreign sales at least half of total sales by the third year of operations

4. Independent operation during its first three years (i.e., the startup could not have been acquired during this period)

The Google search utility (google.com) was used to identify web pages containing: i) "born global", ii) "export award winner", or iii) phrases that combined "fast growing" or "fast export" with the words "startup", "company", and "firm". A list of the companies identified by the web searches was compiled. For each company on the list, information about the company published on its website or in press releases, association journals, and news announcements was examined to decide whether or not the company met the criteria identified above.

## Search Results

The search was conducted in the summer of 2012, and it identified 21 startups founded in 12 countries between 2002 and 2009. The market offers of these startups were organized into four types: cloud computing services, software products, software services, and industrial products.

For each startup, Table 1 identifies its initial market offer, offer type, country of origin, and year founded. The sample includes startups that design, develop, and manufacture technology internally, depend on the technology supplied by others, develop software products and tools, deliver web-based specialized services, and provide custom software services.

The 21 startups were founded in 12 countries. Of the 21 startups, nine (43%) were founded in six European countries (Cyprus, Czech Republic, Denmark, Germany, Sweden, United Kingdom), four in the United States (19%), three (14%) in Australia, two (10%) in South America, two (10%) in Israel, and one (4%) in China. Nine (43%) of the 21 startups in Table 1 were founded between 2002 and 2005, and 12 (57%) were founded between 2006 and 2009.

Of the 21 technology startups included in the sample, 11 (52%) offered web-based services, five (24%) developed and sold software, three (14%) designed, developed, and manufactured industrial products, and two (10%) delivered software services.

## Findings from Examining Company Information

The publically available information on the 21 startups shown in Table 1 was examined. The three main findings are described in this section.

*1. Startups addressed a problem that was pervasive globally*
Table 1 suggests that each of the startups that increased foreign sales early and rapidly addressed a problem that affected a large and growing number of organizations and individuals in various geographies.

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**Table 1.** Companies found to have rapidly increased foreign sales within three years from inception

| | Company | Market Offer | Offer Type | Country of Origin | Year Founded |
|---|---|---|---|---|---|
| 1 | **360Cities**<br>360cities.net | Geo-referenced panoramic photos | Web-based service | Czech Republic | 2007 |
| 2 | **Airbnb**<br>airbnb.com | Marketplace for unique accommodations | Web-based service | United States | 2008 |
| 3 | **Ansarada**<br>ansarada.com | Virtual data rooms | Web-based service | Australia | 2005 |
| 4 | **Atlassian**<br>atlassian.com | Software development and collaboration tools | Software | Australia | 2002 |
| 5 | **Canonical**<br>canonical.com | Commercial support and services for Ubuntu Linux and related projects | Software services | United Kingdom | 2004 |
| 6 | **Conduit**<br>conduit.com | Tools that enable publishers to interact with users | Web-based service | Israel | 2005 |
| 7 | **Dewak S.A.**<br>dewak.com | Help desk products and services | Software services | Colombia | 2008 |
| 8 | **Dropbox**<br>dropbox.com | File hosting service for photos, documents, and videos | Web-based service | United States | 2007 |
| 9 | **Eagleyard Photonics**<br>eagleyard.com | High-power laser diodes for medical, scientific, and industrial applications | Industrial products | Germany | 2002 |
| 10 | **eToro**<br>etoro.com | Social investment network for currencies, commodities, and indices | Web-based service | Cyprus | 2007 |
| 11 | **GoodData**<br>gooddata.com | Business intelligence solutions | Software | Czech Republic | 2007 |
| 12 | **GPEG**<br>gpegint.com | Displays for industrial, gaming, professional, and consumer markets | Industrial products | United Kingdom | 2005 |
| 13 | **Griaule Biometrics**<br>griaulebiometrics.com | Software development kits to develop biometric-based applications | Software | Brazil | 2002 |
| 14 | **Groupon**<br>groupon.com | Discounted gift certificates | Web-based service | United States | 2008 |
| 15 | **Mojang**<br>mojang.com | Video games | Software | Sweden | 2009 |
| 16 | **Noja Power**<br>nojapower.com.au | Medium voltage recloser products and low-voltage motor control centre switchboards | Industrial product | Australia | 2002 |
| 17 | **Papaya Mobile**<br>papayamobile.com | Games on a social platform | Web-based service | China | 2008 |
| 18 | **Sellaband**<br>sellaband.com | Crowdfunding for the purpose of recording professional albums | Web-based service | Germany | 2006 |
| 19 | **Sproxil**<br>sproxil.com | Authentication solutions using short message service for mobile phones | Web-based service | United States | 2008 |
| 20 | **Tufin**<br>tufin.com | Network security products and solutions | Software | Israel | 2005 |
| 21 | **Zendesk**<br>zendesk.com | Platform to manage customer service responses | Web-based service | Denmark | 2007 |

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*2. Collaborative entrepreneurial processes drive early and rapid foreign sales*

Recently, the rapid internationalization of startups has been conceptualized as the outcome of an entrepreneurial process at the individual level. However, at least partly, seven of the startups in Table 1 (360Cities, Airbnb, Canonical, eToro, Groupon, Papaya Mobile, and Sellaband) increased their foreign sales rapidly because they delivered shared services to a global, large-scale, multi-party community that enabled different actors to act entrepreneurially.

Consider the case of 360Cities. This startup maintains the web's largest collection of geo-referenced panoramic photos created by a network of thousands of expert photographers from around the world. The company increased its foreign sales rapidly because it enabled hundreds of professional photographers worldwide to act entrepreneurially and collaborate with: i) large companies (e.g., Google, Microsoft, Nokia, and Flipboard) that operate mapping platforms for the purpose of providing location-based services; ii) advertising agencies, publishers, application developers, and travel industry service providers who license content for use online and in mobile and tablet devices; and iii) digital marketers, venue owners, and team managers who undertake projects to support large events.

Airbnb enables landlords to act entrepreneurially. The startup provides a marketplace that enables people to take vacations in other people's homes, apartments, boats, castles, islands, and cabins. Landlords increase their income by continuously renting extra space effortlessly and increase their listing's exposure in a pre-built community. Travellers are the customers who compare options and interact with landlords to leverage their funds as much as possible.

Canonical works with the open source community to deliver Ubuntu, and it sells enterprise, engineering, and consumer services. Ubuntu is a free operating system that powers millions of desktops, netbooks, and servers around the world. More than 20 million people use Ubuntu servers, and 22 thousand new websites a month are built on Ubuntu servers. Canonical and a network of independent software vendors, resellers, and original equipment manufacturers leverage the Ubuntu code to generate revenue. Canonical, which was founded in 2004, has staff in more than 30 countries and has offices in London, Boston, Taipei, Montreal, Shanghai, São Paulo, and the Isle of Man.

Fjeldstad, Snow, Miles, and Lettl (2012; tinyurl.com/94czk7f) identify three elements of an actor-oriented scheme that anchors collaborative entrepreneurship: actors, common resource, and protocols for collaboration. These three elements can be observed in the seven startups that are in this group. First, each startup attracts actors from all over the world (i.e., companies and individuals) who can self organize and engage in collaborative relationships. Second, each startup maintains a common resource that evolves as the actors engage with one another. The commons of the seven startups include: collection of panoramic photos, code of a complex software system, listings of properties for rent, trade strategies, local and national deals, multi-party games, and new music projects. Third, each startup maintains the protocols, processes, and infrastructures that enable collaboration.

*3. Web processes provide important support to startups' early and rapid foreign sales*

Of the 21 startups shown in Table 1, 18 (86%) generate their revenue from the sale of digital goods and services (i.e., web-based services, software products, and software services). It would be difficult to explain the rapid internationalization of these 18 startups without describing how they relied on the World Wide Web and its underlying electronic communications structure, the Internet, to create and deliver value to their foreign customers, suppliers, and partners. Table 2 illustrates how the startups included in Table 1 use the Internet.

Eleven of the startups in the sample provide web-based services. These services automate manual processes (Airbnb, Groupon), create new ways for people to interact (Conduit, eToro), provide tools for small companies and consumers to leverage the web (360Cities, Ansarada, Dropbox, Papaya Mobile, Sellaband, Sproxil), and provide tools for large enterprises to leverage the web (Zendesk).

The information in Table 2 illustrates that the startups that internationalized rapidly adopted and deployed a wide array of innovative web-based processes. These processes linked external value-creating actors around the world to the internal processes of the company in very innovative ways, deployed innovations not offered previously, and enabled the company to innovate on a continuous and efficient basis.

Consider Tufin, a network security company that specializes in the management of next-generation and net-

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**Table 2.** How startups that grew foreign sales rapidly in the first three years use the Internet

| | Internet Uses | Examples |
|---|---|---|
| 1 | Distribute content about products, services, and company, newsletters, and press releases | • All 21 startups |
| 2 | Provide free access to specialized facilities and individuals | • GPEG provides online access to its Technology Showcase located in London and to its engineering team<br>• GoodData provides free access to all features and connectors to other applications and user support |
| 3 | Make available downloadable software, which is free to use for a limited period and which allows a potential customer to do virtual product testing | • Atlassian, Griaule Biometrics, Tufin |
| 4 | Schedule demonstrations of startup's offer | • Tufin |
| 5 | Sell via an online store | • Atlassian, Griaule Biometrics, Mojang |
| 6 | Locate customers, exchange product development information, develop product, and deliver service support | • Dewak S.A. finds customers on online forums and blogs, exchanges information required to develop custom solutions, and provides post-sales services |
| 7 | Deliver hosting services to consumers and small organizations and allow users to interact | • Dropbox allows users to bring their photos, documents, and videos anywhere and share them easily<br>• Groupon offers a deal-of-the-day website that features discounted gift certificates usable at local or national companies |
| 8 | Deliver hosting services to enterprises for the purpose of improving productivity | • Ansarada provides groups access to virtual data rooms that are simple and intuitive to use<br>• Conduit provides tools that enable publishers to engage with their users<br>• Zendesk allows enterprises to manage customer service responses |
| 9 | Develop open source software and sell services | • Canonical leads co-development of Ubuntu and sells engineering services to enterprises and original equipment manufacturers |
| 10 | Crowdsource, receive feedback, and increase brand recognition | • 360Cities maintains the web's largest collection of geo-referenced panoramic photos, created by thousands of expert panorama photographers |
| 11 | Crowdfund, receive feedback, and increase brand recognition | • Sellaband allows artists to raise money from their fans and a SellaBand community for the purpose of recording a professional album |
| 12 | Engage millions of game users and enable social media interactions | • Papaya Mobile allows game developers to reach more than 50 million mobile device users |
| 13 | Operate a market exchange and enable social media interactions | • eToro operates an electronic marketplace to trade currencies, commodities and indices<br>• Airbnb operates a marketplace to rent accommodation from people in more than 30,000 cities in 192 countries |
| 14 | Deliver product authentication services | • Sproxil provides product authentication solutions to mobile users |
| 15 | Deliver training | • Atlassian, GoodData, Noja Power |
| 16 | Register and support partners as well as reduce potential for fines and mandatory audits | • Tufin's programs that support channel, development, and technology alliances |
| 17 | Manage material returns | • Eagleyard analyses product failures and manages returns of materials |

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work-layer firewalls, routers, network switches, and other network security devices. The company has been cash-flow positive since its inception in 2005. Tufin's rapid international growth is the result of its use of the Internet, making it easy for partners to sell Tufin's products. Their partners include network security vendors that include Cisco, Check Point, Juniper Networks, Fortinet, BMC, Palo Alto Networks, Blue Coat, F5 Networks, and 240 others.

Small companies such as Ansarada, Dropbox and Sproxil use the web and other communication technologies to deliver cloud-based services to customers globally.

Large and small companies around the world are able to outsource important functions to startups. Consider Zendesk, one of the fastest-growing startups examined in the study, which was founded in Denmark. Zendesk helps enterprises of all sizes worldwide to better manage their responses to customers.

The three startups in Table 1 that designed and manufactured physical products also rely on web-based processes to add value to their customers, suppliers, and partners. Eagleyard uses the web to better manage returns of materials. GPEG uses the web to allow developers of devices that use displays to access its Technology Showcase located in London. Noja Power uses the web to deliver videos that educate users on how smart grids and their products function.

The information in Table 2 strongly suggests that web-based processes are very much a part of the value-creation processes for the great majority of the startups found to increase foreign sales rapidly from inception. Thus, it is time for scholars to explicitly integrate web-based processes into the models that explain rapid globalization from inception.

This represents a significant knowledge gap. However, the incorporation of web-based processes into rapid internationalization models presents a serious challenge to scholars in international business. Extant models on company internationalization were first developed by observing experiences of large companies in the real world. But, in order to understand rapid globalization from inception, we need to incorporate observations of experiences of startups that were born on the web and benefit from web-savvy management teams. The real world's traditional perceptions of time, space, speed, quality, structure, and power do not map nicely into the invisible spaces that exist on the web. For example, the many lessons that have been painstakingly learned in the past, that focused on the real world (e.g., cross cultural-studies, market entry, market expansion) may not directly apply in cyberspace, and the pertinent theoretical models must be updated to take this into account.

## Lessons for Early and Rapid Internationalization

Examination of the lessons learned from the literature review and from examining the information on the companies in the sample led the author to propose that there are six elements that management teams and their investors must get right to internationalize their startups early and rapidly. These elements are:

1. Problem scope: knowledge about a question and its answer that are important to a large and growing number of foreign and domestic organizations

2. Stakeholders' commitments to develop a novel, narrow, and differentiated solution quickly: pledges to work with the startup to rapidly develop the core of the solution for which customers worldwide will pay, provide feedback, and make referrals

3. Collaborative entrepreneurship at a global scale: web-based processes, transportation infrastructure, and common resources that enable individuals and organizations worldwide to act on business opportunities

4. Relational capital: relationships that increase capacity to collaborate quickly with individuals, companies, and institutions around the world

5. Legitimacy: quality of being believable or trustworthy in the eyes of customers, partners, suppliers and investors

6. Global capability: adaptability to uncertain environments and willingness to change for the purpose of delivering products and support programs to customers and partners regardless of where they are located

## Conclusion

In this article, key messages were extracted from six literature streams relevant to the globalization of technology startups. Then, the lessons were organized in terms of what managers need to do to globalize a technology startup early and rapidly. Three lessons learned

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from examining the information on a sample of 21 startups found to have increased foreign sales early and rapidly were described, and the six elements of the architecture for the rapid globalization of a technology startup were proposed.

The implications of the findings reported in this article may be significant for three reasons. Firstly, web space is nothing like physical space. If the Internet is indeed a major driver of early and rapid globalization, how relevant is what we teach today about the challenges posed by home-host diversity to management teams of startups?

Secondly, international entrepreneurship is a growing area of research. To explain early and rapid entrepreneurship, scholars have creatively used bricolage principles to construct concepts from a diverse range of abstractions published in the entrepreneurship, international, and strategic management journals. What is becoming increasingly common is the focus on the entrepreneur at the individual level and objective opportunity at the company level. Results in this study suggest that collective entrepreneurship may be a better abstraction than the conventional "entrepreneur at the individual level" abstraction. We find instances where startups grow rapidly because they link suppliers, customers, and partners in ways that enable them all to act entrepreneurially. We also find that a portfolio of ever-changing opportunities may be a better abstraction than the conventional "one objective opportunity" abstraction.

Thirdly, the approaches and models that can help startups meet the requirements of global markets from inception need to be developed and validated empirically, enacted by startups' management teams, and evolved by incorporating the lessons learned from using them.

The main motivation for writing this article was to highlight the need to develop norms and practitioner-oriented models that can help technology startups better manage their early and rapid globalization. We hope that researchers will increasingly focus their attention on the development of approaches and models that can assist management teams internationalize their startups early and rapidly.

## About the Author

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# What Technology Startups Must Get Right to Globalize Early and Rapidly

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# To Internationalize Rapidly from Inception: Crowdsource

Elnaz Heidari, Mohsen Akhavannia, and Nirosh Kannangara

> *"Why wouldn't you want to make the products that people want you to make?"*
>
> Jake Nickell
> Founder and COO of Threadless

Technology entrepreneurs continuously search for tools to accelerate the internationalization of their startups. For the purpose of internationalizing rapidly from inception, we propose that technology startups use crowdsourcing to internalize the tacit knowledge embodied in members of a crowd distributed across various geographies. For example, a technology startup can outsource to a large crowd the definition of a customer problem that occurs across various geographies, the development of the best solution to the problem, and the identification of attractive business expansion opportunities.

In this article, we analyze how three small firms use crowdsourcing, discuss the benefits of crowdsourcing, and offer six recommendations to technology entrepreneurs interested in using crowdsourcing to rapidly internationalize their startups from inception.

## Introduction

How can a technology startup internationalize rapidly from inception when it has scarce resources and limited knowledge about the needs of customers in various geographies? In this article, we argue that crowdsourcing is a low-cost process that can help a startup internationalize rapidly from inception.

Crowdsourcing is "the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined, and generally large, network of people in the form of an open call" (Howe, 2008; tinyurl.com/9tz42kj). The core of the concept is to access the collective intelligence of a distributed group of people to complete business-related tasks that a company would normally perform itself or would be outsourced to a third party. Crowdsourcing can be used to collect information, solve problems, clean up data, classify content, select options, create new content, and complete many other tasks.

Figure 1 illustrates a crowdsourcing process. Interactions between the startup and a group of people, or "the crowd", anchor the process. The startup makes an open call to a crowd by providing information about the tasks that are outsourced to the crowd. Individuals respond with offers of what they can provide the startup. The startup or its agent then selects a subset of the crowd to carry out the tasks. If the crowd successfully completes the tasks, they may be asked to complete other tasks.

This article contributes suggestions on how entrepreneurs can use the process shown in Figure 1 to rapidly internationalize their startups. The next section provides the results of our analysis of the crowdsourcing processes used by three startups, Threadless, 360Cities, and 99designs and then identifies the main benefits to startups of crowdsourcing. Next, we suggest what a technology startup should do to accelerate its internationalization from inception. Finally, we provide concluding remarks and offer suggestions for future research.

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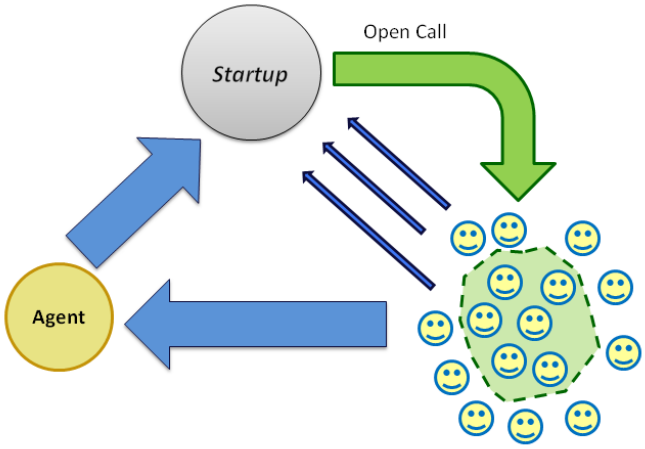


**Figure 1.** The crowdsourcing process*

*Adapted from Schenek and Guittard (2009; tinyurl.com/9ztusro)

## Crowdsourcing Processes

We decided to examine the crowdsourcing processes that are essential to the success of startups that internationalized rapidly. In this section, we first identify three startups that could not have internationalized rapidly without crowdsourcing and then compare their crowdsourcing processes.

*360Cities*
360Cities (360cities.net) enables the publishing of high-quality panoramic photography. Its platform automates the process of publishing panoramas, processing them for tiled multi-resolution display, locating them on a world map, and embedding them into websites. 360Cities was founded with angel funding in Prague, Czech Republic, in 2007. The company started with six employees. The 360Cities crowdsourcing process accesses millions of panoramic photographs from places around the globe each year. Crowds of photographers provided the materials for 360Cities to dominate the panoramic photograph market in less than three years from inception.

*99 designs*
99designs (99designs.com) operates an online marketplace for crowdsourced graphic design. According to the company, a new design is uploaded every five seconds and more than $40 million has been paid out to its design community since 2008. The company started with three employees in Melbourne, Australia, in 2008. 99designs uses crowdsourcing to enable small companies to find design experts at affordable prices. A crowd comprised of thousands of designers compete to satisfy clients who need logos, websites, business cards, or other design-related tasks required to operate their small businesses. In 2012, the company hired employees located in San Francisco, Melbourne, Berlin, and London.

*Threadless*
Threadless (threadless.com) is a T-shirt company that was founded in Chicago, USA, in 2000. Threadless relies on an online community of artists that contribute novel ideas to customize the firm's T-shirt products. Threadless enables potential customers to produce the designs of the T-shirts that they intend to buy. In 2004, the firm's revenue was around $1.5 million, and in 2006 it jumped to $6.5 million.

Table 1 compares the crowdsourcing processes used by these three companies in terms of the tasks that are routinely assigned to the crowds, who are dominant in the crowds, what motivates crowds to participate, how crowds participate, and the main costs incurred by the startups.

## Benefits of Crowdsourcing

Crowdsourcing offers startups at least five important benefits. First, it decreases marketing and sales costs. For example, Threadless collects designs from the crowd and sells T-shirts to that same crowd. Thus, the company sells T-shirts with no advertising costs, no professional designers, no sales force, and no retail distribution (Chafkin, 2008; tinyurl.com/5mddgj). When Accel Partners invested $35 million in 99designs, Patrick Llewellyn, the company's CEO was quoted as saying: "More than 90% of 99designs' customers come through word of mouth. Imagine if the company actually invested in sales and marketing." (Lacy, 2011; tinyurl.com/9nr98j6). Thus, the use of crowdsourcing reduces marketing and sales costs.

The second benefit that crowdsourcing provides a startup is increased public awareness about the firm's existence and a higher volume of interactions. A startup that makes an open call to a crowd becomes better known in the online community (Walter and Back, 2010; tinyurl.com/8d7umxl). The part of the crowd that responds to the call and completes the tasks becomes aware of what the firm does and why it does it.

The third benefit that crowdsourcing provides a startup is deeper insights about customers and channel partners in different geographies.

# To Internationalize Rapidly from Inception: Crowdsource

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**Table 1.** A comparison of the crowdsourcing processes used by three small firms

| | Threadless | 360Cities | 99designs |
|---|---|---|---|
| **What** (Tasks assigned to crowds) | - Create new designs<br>- Vote on best designs<br>- Improve existing designs | - Provide panoramic photographs of worldwide locations | - Provide graphic designs based on client needs<br>- Provide design estimates |
| **Who** (Who are the crowds) | - Artists and graphic designers<br>- General public | - Professional photographers from global communities | - Artists and graphic designers<br>- Web and mobile application designers<br>- Advertisement designers |
| **Why** (Motivation for crowds) | - Cash and Threadless credits<br>- Designers names are printed on T-shirts<br>- Designs are copyrighted<br>- Increase in knowledge about designs | - Provide advice and information to photographers on a wide range of technical, artistic, and commercial topics<br>- Photographers names are on the photos<br>- Photographers maintain 360Cities portfolio pages<br>- Promote business through 360Cities | - Build up customer relationships through 99designs website<br>- Build portfolio and recognition through 99designs<br>- Earn money when the graphic design is selected<br>- Designs are copyrighted |
| **How** (Tools and processes employed) | - Software platform and website to submit new designs<br>- Voting system to confirm and accept good designs<br>- Forums to share ideas | - Photo stitching tools for the crowd to create panoramic photos<br>- Forums to share ideas, discussions, and professional advice<br>- Website to share photographs submitted by photographers | - Web platform to submit designs<br>- Designer and client forums to share ideas<br>- Tool for clients to submit their design briefs and expectations |
| **Costs** | - Four ambassadors who engage in the online community<br>- Operation of website and online tools to submit and process designs<br>- In person and online community events | - Supporting a database of photographs submitted by photographers<br>- Contests and incentives to the crowd<br>- Paying photographers | - Operating designer and client forums<br>- Staff to handle crowd-related issues |

The fourth benefit of crowdsourcing is that it enables the startup to leverage expensive resources (i.e., the time of the individuals who participate in the crowd) with a relatively small initial investment. For example, the two Threadless co-founders invested $1,000 of their own money to launch and grow their startup, and now, the crowd invests its time in creating and submitting 1000 new designs to the website each week.

The fifth benefit is that crowdsourcing allows the startup to attract large partners and customers. When crowdsourcing attracts a significant number of users, large, well-established vendors, partners, and customers become interested in the startup. For example, Google became interested in 360cities because it engaged a large crowd of photographers; this crowd was of interest to Google because of their Google Earth program. Microsoft (Bing) and Nokia also became interested in the mapping-related capabilities of the startup after its partnership with Google Earth was announced (tinyurl.com/6k93qgm). Similarly, large companies such as Dell and Apple are selling Threadless laptops, laptop sleeves, and switch lids, and Griffin and Apple are selling iPhone cases with Threadless designs (tinyurl.com/97ojjqt).

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## Crowdsourcing to Internationalize Rapidly

In this section, we use what we learned from examining how three startups, 360Cities, 99designs, and Threadless, used crowdsourcing to provide suggestions for entrepreneurs who wish to establish crowdsourcing environments to accelerate the internationalization of their startups from inception.

*1. Attract the appropriate crowd*
Crowdsourcing requires a "good crowd", particularly in terms of the quality of contributors. Proper crowd selection and management can help startups internationalize rapidly from inception. We make the following suggestions:

- Attract into the crowd the individuals who care the most about solving the problem described by the startup's open call. For example, the open call from 360Cities attracted photographers who were eager to experience an interesting photography technique.

- Attract crowds from different geographies. A crowd should include individuals from different places around the world. This will increase global acceptance of the company's offer and accelerate innovation.

- Attract a crowd that can help sell the startups' products. Convert the crowd into customers and an international sales force. An interesting feature of crowdsourcing is that it attracts both potential suppliers, buyers, and channel partners.

*2. Reduce the cost of screening ideas*
Attracting a large international crowd can result in a high cost of screening ideas. The startup should focus on quality, not quantity. Too many ideas will be burdensome and costly since every idea submitted needs to be examined. 99designs automates the process clients use to screen the designs they need. However, in the case of Threadless, employees manage the crowdsourcing process and screen the designs.

*3. Modularize the tasks that are outsourced to the crowd*
Tasks outsourced to global crowds need to be modular and finite. Taking photos and designing T-shirts are examples of modular finite tasks. Do not expect a crowd that is distributed globally to integrate complex tasks.

*4. Motivate the international crowd*
Startups need to understand what motivates talented submitters to participate in crowdsourcing (Trompette et al., 2008; tinyurl.com/8q3uvs7). They must define what motivates submitters in the international crowd and provide compelling incentives based on the crowds' expectations of contributions. Members of a crowd are motivated by different things. Therefore, to satisfy an international crowd, the startup should offer various incentives, not just one. For example, 360cities photographers can receive a share of the profits generated when their photographs are licensed to third parties, have their names printed in their photographs, and so on.

*5. Align tools and processes with outcomes*
Tools and processes play a key role in crowdsourcing. In the case of 360cities, their weblogs enable members of the crowd to communicate, and the automatic photo stitcher facilitates panoramic photo conversion. Similarly, Threadless and 99Designs provide design environments to help designers in crowds to realize their ideas. These two companies also provide appropriate tools for voters to judge the submitted designs.

Tools and processes need to be simple and easy to use by individuals located in various geographies and with different cultures and languages. If members of the crowd have difficulties learning about the crowdsourcing environment, their productivity will decrease.

*6. Develop a plan to prevent and handle capacity overloads*
Startups must develop a plan to prevent capacity overloads as well as deal with any overloads that do occur. For example, 360cities moved its systems to Amazon after being overloaded by photo uploads on its automatic photo stitcher.

## Conclusion

This article describes how a startup firm can use crowdsourcing to internationalize rapidly from inception. It shows how firms can use crowdsourcing to gather global ideas and solutions to address the latent needs of foreign customers. By recognizing global-customer needs using different global crowds, crowdsourcing provides firms with the opportunity to customize their products and services to suit the different demands in foreign markets

This article also provides evidence of recent companies that were successful using crowdsourcing as their main business pattern. Through these case studies, the article elaborates on the different methods the firms used to effectively attract crowds and exploit the power of the crowd in their path to rapid international growth.

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However, not all businesses are as highly dependent on crowds as the case studies in this article. Therefore, more research is required to answer questions such as when and how to democratize creativity in different firms with variety of business structure, and how crowdsourcing impacts progress with rapid internationalization. Also, there is little information on how technology startups can align crowdsourcing outcomes with technology growth to stay competitive in an international market.

This article highlights the potential that crowdsourcing holds in facilitating a rapid internationalization process. The main challenges entrepreneurs face when crowdsourcing are choosing an appropriate crowd to collect ideas from and then filtering the quality ideas that come from that crowd.

## About the Authors

**Elnaz Heidari** holds a Master of Engineering degree in Technology Innovation Management (TIM) from Carleton University in Ottawa, Canada. Her M.Eng project was based on crowdsourcing and open innovation. She also holds a B.Eng in Rubber Industrial Engineering. Her industrial experience includes working in the R&D department of Pars Vacuum Industries for two years.

**Mohsen Akhavannia** is a graduate student in the Technology Innovation Management (TIM) program at Carleton University in Ottawa, Canada. He is a software engineer with expertise in system analysis and design. He has six years of international work experience including work on projects relating to banking and business-automation systems.

**Nirosh Kannangara** is a graduate student in the Technology Innovation Management (TIM) program at Carleton University in Ottawa, Canada. He holds a B.Eng. in Communications Engineering, also from Carleton University. Nirosh has two years of experience designing software in the fibre optics communication industry and currently works as a Photonics Software Designer at the Ciena Corporation.

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# Using Social Media to Accelerate the Internationalization of Startups from Inception

Tony Maltby

> *"Power is knowledge + the ability to apply it."*
>
> Victor Newman
> Professor and author

A set of principles, processes, and tools that entrepreneurs can use to rapidly internationalize their technology startups from inception does not exist. This article discusses entrepreneurs' use of online social media networks to rapidly internationalize their startups from inception. The article was inspired by how the founders of Dewak S.A. rapidly internationalized their technology startup. Dewak was founded by five unemployed Colombians in June 2008. Two years later, foreign sales comprised 95% of the firm's revenue and provided the founders with full-time employment. Dewak's only channel to market was via online social media networks.

Recognizing that entrepreneurs can use social media to amplify their tacit knowledge and convert it into sellable products and services contributes to the development of a learning-based view of rapid internationalization from inception. The article provides entrepreneurs seeking to launch and grow global businesses with four recommendations that may save them time and money and increase the size of their addressable markets.

## Introduction

The literature suggests that extensive use of the Internet and the establishment of trust relationships with large, well-known companies lead to a startup's rapid internationalization (Gabrielsson and Kirpalani, 2004; tinyurl.com/94wdjwo). However, little is known about the principles, processes, and tools that entrepreneurs can actually use to accelerate their startups' internationalization from inception.

Recent efforts to understand what factors drive rapid internationalization from inception focus on how a startup develops a mutual dependency with those foreign individuals and organizations that can most benefit from quickly solving a specific problem observed in various geographical locations (Bailetti, 2012; timreview.ca/article/614). Direct interactions due to this mutual dependency amplify the startup founders' tacit knowledge in directions that add significant value to those foreign customers who can most benefit from a solution to a problem.

Rapid internationalization is a knowledge-intensive activity that involves explicit and tacit knowledge. Explicit knowledge can be readily documented and explained. Tacit knowledge is difficult to articulate. Often, founders of technology startups are not aware of the knowledge they possess or how this knowledge can be of value to potential customers. Tacit knowledge can only be observed through practice in a given context and transmitted through social networks (Schmidt and Hunter, 1993; tinyurl.com/9jg2xtq).

This article contributes four recommendations to entrepreneurs who wish to use social media networks to accelerate the internationalization of their technology startups from inception. The recommendations are

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based on the author's examination of the rapid internationalization of Dewak S.A. from its inception. First, the concepts of tacit knowledge and social media are introduced. This is followed by a description of the Dewak case and a discussion of four recommendations on how entrepreneurs can use social media networks to rapidly internationalize their startups. Finally, the article offers conclusions and suggestions for future research.

## Tacit Knowledge

The term "tacit knowledge" was introduced by Michael Polanyi (1966; tinyurl.com/9xm4lkp). Tacit knowledge refers to practical, action-oriented knowledge or "know-how" based on practice; it is acquired by personal experience, it is seldom expressed openly, and often resembles intuition (Smith, 2001; tinyurl.com/9q9w7e4). Describing tacit knowledge as a "thing" that is separate from the person who possesses it is difficult. Explicit knowledge refers to academic knowledge or "know-what" that is described in formal language, print or electronic media (Smith, 2001). For example, knowing the rules of the C programming language is an example of explicit knowledge. Knowing how to apply the rules of the C programming language to solve a customer problem is an example of tacit knowledge.

In the context of a startup, tacit knowledge of international markets and technology enables entrepreneurs to recognize and exploit global opportunities. Thus, potential customers, partners, and investors place a value on the tacit knowledge of entrepreneurs.

## Social Media

Social media refers to mobile and web technologies through which individuals and communities share, co-create, discuss, and modify user-generated content (Kietzmann et al., 2011; tinyurl.com/6cszuuu). Many social media networks exist. For the purpose of this paper, the focus is on those networks where we can observe strong communities of interest or "communities of practice" (Wenger, 1998; tinyurl.com/8ptb78d), which are groups of people who use forums and blogs to discuss common interests or professional practices. These communities can also be found embedded within larger social networks, such as "circles" within Google+ (plus.google.com).

Communities that use online forums and blogs evolve much like conventional communities, complete with etiquette and normative rules of conduct. These communities develop formal or informal hierarchies that are generally acknowledged across the membership. The contributions of some forum participants will be more widely acknowledged than others, based on their status in the social hierarchy. In this context, hierarchy represents the volume of a members "voice" in the community. Every member, by virtue of membership itself, begins with a volume setting which is adjusted over time depending on their contributions to the community and interactions with other community members.

Discussion forums populated by communities of users who are interested in a particular subject matter offer an opportunity for entrepreneurs to create and capture value. Membership affords an instant overlap between the entrepreneur and other community members. Membership confers a stakeholder status to entrepreneurs. An entrepreneur has the opportunity to demonstrate their tacit knowledge via contributions to the community. Establishing credibility through contribution confers status, which in a community of professional users, can lead to opportunities for value creation and capture.

Many professional communities occupy space in online social media. The majority of these communities have some sort of discussion forums where members share perspectives, ideas, advice, and tools relating to their professional interest in a particular field. Membership provides the entrepreneur with an immediate connection with the other members of the community. In effect, there is no such thing as a "cold call" in this type of environment. If customers recognize entrepreneurs as experts who can solve their problems, they will be more likely to buy from them.

Membership in a social media community made up of professional international users offers the entrepreneur the means to interact with potential customers, partners, and other stakeholders at little or no cost. Entrepreneurs demonstrate their tacit knowledge directly to community members through the contributions they make to the community. These contributions include solutions to pervasive problems, tools, or specialized services.

## Dewak S.A.

Fuerst (2010; tinyurl.com/8ukyhst) describes the rapid internationalization of Dewak S.A (dewak.com), a Colombian startup founded in 2008. Dewak's five Colombian founders were able to quickly convert their tacit know-

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ledge of the Kayako help desk software (kayako.com) into a global firm that develops custom applications. By 2010, Kayako users accounted for about 80% of Dewak's revenue. Also, by that time, Dewak was working in partnership with Kayako and NTT Communications was one of its many international clients. In 2009, NTT Communications was a multinational corporation that ranked 44th in the Global Fortune 500 list (tinyurl.com/mltk9s). As of 2010, the source of 95% of Dewak's business was international.

Dewak's founders piggybacked on the success of an existing vendor, Kayako, and leveraged existing online social networks to first amplify their tacit knowledge and then convert it into products and services. Dewak's founders were able to directly demonstrate their value as experts of Kayako software by solving problems in real time with the community of users on the Kayako's forums. Through interactions in the forum, Dewak's founders were able to create collaborative and mutually beneficial relationships with potential customers, Kayako, and other partners.

The Dewak founders used online forums to engage with a community of professional users of the Kayako platform. These forums included those that Kayako operated to interact with its customers. The Dewak founders provided free advice and developed free tools for community members to demonstrate their tacit knowledge directly to potential customers and partners. The founders gained expert status within the community, created trust relationships with other community members, and earned them a reputation for being professional, effective, and efficient. As Dewak's business grew, its founders continued to use Kayako's forums and created their own forum to capture customer feedback about their work.

## Lessons Learned

The author learned four important lessons from examining how Dewak's founders used social media networks to rapidly internationalize their startup from inception.

*1. Leverage social media networks where international users seek to solve problems*

At inception, a technology startup's most valuable asset is the tacit knowledge of its founders. Social media networks provide founders with immediate access to a large international community of potential customers, partners, employees, and competitors. The greater the number of interactions entrepreneurs have with others, the greater the likelihood of significant amplification of their tacit knowledge.

Entrepreneurs should access social media networks where: i) a large number of international experts seek to solve problems and ii) their tacit knowledge can help solve these problems. Social network communities that focus on discussing a potpourri of issues offer fewer opportunities to entrepreneurs for value capture. Communities with few international users limit tacit-knowledge amplification. Dewak's use of Kayako's help forums gave them access to a global user community made up entirely of people looking for solutions towards which their tacit knowledge of the Kayako software could contribute.

Entrepreneurs can use social media networks to: i) locate foreign individuals and organizations that can most benefit from having a problem solved; ii) interact with foreign customers, partners, and other stakeholders to amplify their tacit knowledge and convert it into marketable products and services; iii) provide real-time evidence of the value provided by their solutions; iv) develop trust relationships with potential customers and partners; v) learn about other go-to-market channels; and vi) continuously innovate to meet the demands of customers.

*2. Establish credibility*

To establish credibility in a social media network, an entrepreneur must:

**1. Be a good community member.** Adherence to the rules and social etiquette of a community demonstrates respect. Such deference is essential to being accepted in the community and establishing credibility.

**2. Leverage existing experts.** Entrepreneurs need to locate the community members who are considered to be experts and secure access to their audiences. The entrepreneur can either complement the contributions of these experts or offer alternatives. The basic premise is that acceptance from the experts confers an expression of trust in the expertise of the entrepreneur.

**3. Demonstrate expertise.** The entrepreneur needs to identify the pervasive problems being discussed by community members and offer solutions to these problems. The Dewak founders provided solutions and tools to the Kayako user community at no charge. However, it is useful to distinguish between offering answers to

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questions from offering solutions to problems. Dewak's founders provided solutions to community members' problems, not just answers to their questions.

*3. Focus on creating and capturing value early*
Rapid internationalization requires that opportunities to create and capture value from interactions with foreign organizations via social media networks become available at a very early stage. Entrepreneurs need to remain focused on value creation and capture. It is very easy to squander resources when an entrepreneur views the interactions with users of social media networks as an end in itself instead of as a means to an end.

There are different expectations and rules for reciprocity associated with being a business rather than simply a community member. Entrepreneurs who wish to be paid by customers instead of being thanked by friends need to establish themselves as a professional enterprise from the outset. The Dewak founders leveraged Kayako's professional standards by creating a persistent thread on the Kayako help forum titled "Review of Dewak." In addition, they identified themselves to Kayako's staff early in the process and indicated their capabilities. This disclosure started a complementary relationship with Kayako. The founders also adhered to a set of their own professional standards regarding timeliness and accessibility for early value capture.

*4. Categorize users, their value to the startup, and their problems*
It is unclear from examining the Dewak case how the founders categorized their customers. However, the sheer volume of postings on some forums suggests that some sort of customer or problem categorization is necessary. To ensure that a startup's limited resources are spent effectively, an entrepreneur can categorize users of social media networks as well as their values and problems. For example, users can be organized into categories such as customers, channel partners, complementors, and competitors. Value can be assigned to each user to help determine who to spend time and effort on. Problems can be organized into categories such as: problems that affect many users in different geographies that the startup can solve, problems for which there are no rewards to the startup for solving them, and problems the startup cannot solve.

## Conclusion

Social media may be an important low-cost channel to the global market for technology startups. Entrepreneurs can use social media networks to develop mutual dependencies with customers and partners as well as amplify their tacit knowledge and quickly convert it into products and services for which customers are willing to pay. Customers can select suppliers based on their contributions to solving problems of interests to community members. Suppliers can reduce their marketing and sales costs by offering solutions to the problems discussed in the online forums and blogs.

Dewak grew its foreign sales rapidly by not following the conventional phased approach to internationalization. Dewak's founders interacted with customers and partners in a social media forum where problems and solutions were openly discussed. Dewak founders demonstrated the value of their tacit knowledge, which in turn established a trust relationship between Dewak and Kayako users.

From inception, Dewak founders used forum-enabled interactions to develop their products to meet the specific requirements of users. The forum reduced the barriers between the technology startup and its customers at a relatively low cost.

We are at an early stage of understanding how entrepreneurs can leverage social media networks to accelerate the internationalization of their technology startups from inception. This article contributes four important lessons about using social media to accelerate the internationalization of technology startups from inception derived from an in-depth analysis of one case study.

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## About the Author

**Tony Maltby** is a Master's student in the Technology Innovation Management program at Carleton University in Ottawa, Canada, where he is developing his latest entrepreneurial venture. His research interests relate to the application of gamified platforms, social media, and open source concepts to support the global business ecosystem. He is an experienced communicator with a multi-disciplinary perspective. He received his BA in Anthropology from Carleton University in 2002 where he studied the formation and interaction of online communities. From 2006 to 2011, Tony lived in China studying the certification process of the Chinese university education system. Having been the founder of several technology companies and an entrepreneur since very early in his career, Tony now has more than 25 years of entrepreneurial experience.

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# Global Mindset: An Entrepreneur's Perspective on the Born-Global Approach

Robert Poole

> *"It is not necessary to change. Survival is not mandatory."*
>
> W. Edwards Deming (1900–1993)
> Professor of statistics, author, and consultant

The born-global approach calls for a startup to address the needs of a global market from inception. This approach provides an attractive alternative to the conventional staged approach to internationalization whereby a startup first operates in its home market and then enters one or more foreign markets sequentially. This article highlights the mindset change that an entrepreneur must make to move from the conventional staged approach to the born-global approach. The author of this article is an experienced entrepreneur and the article describes his own mindset change that occurred when enacting the born-global approach. The author uses his own experience and company as a case study to develop recommendations for other entrepreneurs who are evaluating the born-global approach to launch and grow a technology company.

## Introduction

The born-global approach requires entrepreneurs to think and act globally from inception. In this article, I summarize the principles underlying the born-global approach and retrace my own journey as an entrepreneur to a greater appreciation of how early and rapid globalization can increase the chances of success for a new technology startup. Beyond knowledge acquisition and strategy development, a key element of this journey was a mindset change that was necessary to fully embrace the born-global approach.

Most entrepreneurs are comfortable with the idea of launching their startups to address the needs of a local market. There, they can grow and fine-tune their market offers and internal operating systems. Foreign expansion occurs only once the company is sufficiently large and mature and has learned how to serve the needs of the local market.

The notion of starting a company that is global from day one is daunting. At first it seems to present challenges that are impossible to overcome. There is the risk that the entrepreneur's efforts become unfocused or spread too thinly over many activities. The reluctance to establish a global company from inception is understandable once you accept that the entrepreneur is used to a mindset anchored around the conventional approach to internationalization.

The born-global approach requires a change in mindset, not just a change in business or product strategy. A born-global mindset allows entrepreneurs to define and act on global opportunities at an early stage in their companies' life cycle. However, entrepreneurs cannot be expected to make a sudden "leap of faith".

In this article, I describe my own gradual change in mindset, which began with lessons from my own entrepreneurial experience even before I was introduced to the born-global concept. I hope this article will be of interest to entrepreneurs about to start companies, but also to entrepreneurs with existing businesses.

This article is structured as follows. First, I describe my own background and the entrepreneurial experiences that triggered an initial shift in my mindset with respect to internationalization. Next, I offer six recommendations for entrepreneurs based on my experience, the

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principles underlying the born-global approach, and the related internationalization strategies we are currently implementing in my company.

## Lessons from Experience

As an entrepreneur and co-founder of three technology startups, I have been part of management teams that have raised over $4 million through multiple rounds of financing, executed a strategy through a reverse-takeover to become a publicly traded company, and sold over $2 million in products and services to companies in Canada, the United States, and Europe. Our customers have included the Canadian government, NASDAQ and American Stock Exchanges, Flextronics, Raytheon, General Electric, and American Express. By some standards these may be considered modest achievements; however, these experiences have taught me a great deal about starting and growing technology companies.

Early on, my co-founders and I had a conventional mindset with respect to internationalization. Our thinking as entrepreneurs and founders was to first find customers in Canada (our home country) and in the large adjacent market of the United States, where possible. Although we recruited resellers in Australia and an original equipment manufacturer (OEM) as a partner in the United Kingdom, our strategy and the vast majority of our early efforts were focused on the domestic market. We considered foreign markets as opportunities only when they presented themselves on an ad hoc basis through sales leads or when potential foreign partners reached out to us. Although reaching the U.S. market required us to step out of our domestic sphere, this still represented a limited global step given the country's proximity and similarities with Canada relative to other foreign markets.

For many Canadian technology companies, penetration into the United States is important because its market is 10 times the size of the Canadian market. The Canadian market is typically not seen by large or institutional investors as sufficiently large to provide a compelling proof point for a high-potential, fundable business.

For an investor, the best proof point of the attractiveness of an opportunity is evidence of global sales. Investors have told us over the years that they require the minimal addressable market opportunity for a business to be $1 billion. A market of that size, combined with a well-differentiated product or service and a superior value proposition, makes it possible to have a shot at creating a company of sufficient size to make it worth their while to invest their money.

As we made dozens of presentations of our opportunities to potential investors in the United States, our mindset began to shift as we gained an increasing understanding of the challenges and benefits of globalization. In many cases, a global market makes an opportunity far more attractive than if the opportunity just targets the domestic market. We began to realize that the earlier we could access global markets, the greater the likelihood of our company's long-term success. Although we were not aware of the born-global approach at the time, our early experiences "prepared the ground" in terms of each of us becoming personally more receptive to early or rapid internationalization strategies.

A further evolution of my own mindset has been accelerated through the launch of a new Canadian company with the same group of co-founders: Freebird Connect (freebirdconnect.com). Freebird Connect builds upon experience and knowledge from its predecessor, but addresses new markets with a new business model (Poole, 2011; timreview.ca/article/446). Freebird Connect provides cloud-based software that combines data visualization (business intelligence) with collaboration and social networking to help organizations unify information and generate knowledge. Our company solves specific economic development problems for municipalities and for original equipment manufacturers and reseller partners (Box 1).

In the next section, I offer six recommendations for entrepreneurs based on the principles underlying the born-global approach. These principles have influenced our approach to the globalization of Freebird Connect. At the moment, Freebird Connect is probably best described as a hybrid between a conventional and born-global company, although the tides are increasingly shifting toward a more global approach. Knowledge of the born-global principles has greatly influenced a further shift in my personal mindset with respect to the benefits of early and rapid globalization.

## Recommendations for Entrepreneurs

In this section, I offer six recommendations for entrepreneurs based on my experience applying the born-global approach to my own company. These recom-

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mendations highlight key areas where my own mindset needed to shift to take full advantage of the born-global approach and provide examples of the six elements described by Bailetti (2012; timreview.ca/article/614). It is my hope that these recommendations will help entrepreneurs in their own efforts to profit from their startups operating in global markets.

*1. Instill a global mindset throughout the company from inception*

Develop global opportunities from the moment your company is conceived; "local" is a small part of "global". Although these are early days for our startup, we apply the born-global principles when our management team discusses strategy. When we discuss "local" opportunities, we do so as if they were special instances of "global" opportunities.

Ideally, a global mindset should pervade the company from the start, including all of the founders and employees. Without a global mindset, the founders will not put in place all of the requisite processes throughout the organization to serve foreign customers and to capture all of the available knowledge from foreign sources. All of the founders of Freebird Connect understand that, to grow globally, we need a global orientation. Our current mindset stands in sharp contrast to our previous mindset where we only looked to foreign markets when opportunities presented themselves in an ad-hoc manner.

*2. Seek out individuals with international experience*

A global business requires a global network of relationships that can be leveraged to find customers, champions, and partners. This is where many immigrants to a country have a significant advantage over domestic entrepreneurs who likely do not have international experience, knowledge, or relationships. Previously overlooked groups (e.g., new immigrants, foreign Chambers of Commerce, trade officials from foreign embassies, universities, international associations) become critically important during the start-up phase of a born-global company. Similarly, hiring employees with international experience can provide important knowledge and experience.

For Freebird Connect, company champions are particularly important. A company champion is someone who is not likely to buy the company's product or service, but recognizes the value that the product or service provides their organization. Champions understand the problem solved and they are in a position to help the startup in a number of ways. For example, a cham-

**Box 1.** Impact on Economic Development

Born-global companies are economic development engines, particularly when seen from the perspective of a municipality. A local business that employs people is good for the local economy, and job creation is an important measure of successful economic development for municipalities. However, a business that also brings cash into a local economy from outside its borders is a far more powerful type of economic development agent. Municipalities can leverage born-global companies to drive local economic growth.

Municipalities also happen to be key target customers for our Freebird Connect platform, as described in the author's previous articles on economic development (Poole, 2010; timreview.ca/article/391) and on the Freebird Connect platform (Poole, 2011; timreview.ca/article/446).

Our platform can help municipalities develop their economies, but we also believe that it can be used as a platform to help born-global companies in the following ways:

1. Provide entrepreneurs with processes for applying the born-global principles.

2. Create public and private communities of customers, partners, and champions that unify their collective knowledge and insight and work together to achieve discrete, mutual objectives.

3. Capture, analyze, and report on those key performance indicators that determine the health and effectiveness of an entrepreneur's born-global initiative.

In this way, the economic-development impact of Freebird Connect taking a born-global approach can be measured in three ways: i) when we generate cash and jobs in our own local economy, we act as an economic development engine for our own municipality of Ottawa, Canada; ii) when other municipalities use our platform, we contribute to economic development initiatives around the world, and iii) when companies use our platform to become born global, we contribute to further economic development around the world.

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pion could help a startup find potential customers or investors, refine its value proposition, and assist with pricing or other contractual issues.

An entrepreneur needs to assess their current global networks and create a strategy to form new networks to pursue global opportunities. As part of our company's internationalization strategy, we will be creating a global network by accessing the organizations and groups where potential customers and partners interact. As one example, we can easily find out which universities are involved in research that is relevant to our company. As described in Box 1, economic development is one of the markets that our company addresses, so we are seeking out researchers and academic programs that are active in this area. When seeking global OEM partners, we also look for startups that have recently received significant funding. These companies have access to cash, but may likely lack the people and the capability to execute.

*3. Ensure that the problem is small enough to be solved by your startup*

Most entrepreneurs are overly optimistic. While this trait can be an asset to an entrepreneur, it can also be fatal because it can lead the entrepreneur to create a business that cannot succeed. Huge aspirations propel the entrepreneur to try to create a large business too soon. The size of the problem that the entrepreneur intends to solve at the start must be solvable by a startup. This is not to say that the startup founders cannot have huge aspirations and plans to eventually provide solutions that compete with established incumbents, but a small startup must be realistic about what it can actually achieve during the early phase of its life cycle. The right strategy is to find a small-but-significant problem that a startup can solve as a first step to solving more and possibly larger problems.

The problem must not only be small enough to be solved by a small startup company, the problem must be clear and well defined. Moreover, the startup must have a clear solution – ideally with a quantifiable return on investment for customers who pay for your solution. This can be hard to do. At Freebird Connect, we are continually working to define and refine the problems that we solve for our customers and partners (and our partners' customers).

*4. Sell a minimum viable product to foreign customers early*

Start selling a minimum viable product or service to foreign customers who have the greatest need for what you are selling. A minimum viable product or service is an offer that generates revenue for the company and that motivates customers to provide feedback and recommend it to other potential customers (Rancic Moogk, 2012; timreview.ca/article/535).

Many startups tend to spend too much time creating, modifying, and enhancing a product before it is ever seen by a customer. This is especially true if the founders have a technical background. In some cases, technical entrepreneurs devote too much attention to product refinement simply because selling is hard and they dread the unpleasant challenge of cold-calling potential customers. The born-global approach drives entrepreneurs to leverage global relationships and networks. Not only can these relationships remove or lower the barriers to sales, they can generate new knowledge that the entrepreneur can use to better understand the problem as it exists and to generate referrals to others who share the problem. It is better to begin selling a minimum viable product and take advantage of these relationships than to spend too long on refinements that may never bring a return.

A born-global company should use its minimum viable product to leverage each foreign customer to earn money, receive customer-driven feedback on what changes or modifications are required based on the customer's experience, and ask customers for referrals to others with the same problem. In order for Freebird Connect to internalize this approach, we have been studying the principles of referral selling because this established and accepted sales strategy is aligned with the born-global approach.

Traditional startups often look to heavily discount their market offer or give it away for free in exchange for testimonials. The problem with this approach is if a customer does not have to pay or pays little, then either the definition of the problem or the solution to the problem has not been adequately validated. The situation where an organization pays little or close to nothing for something that is a "nice to have" or as a favour to a young, pleading, passionate entrepreneur is very different than a situation where a customer pays market value for a product or service. If the problem is real, and the offered solution is real, then people will pay.

*5. Leverage the assets of well-established companies*

Leverage the assets of established firms with global operations to gain access to foreign customers and networks. These assets include product and technology platforms, Internet forums, brands, and open source

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communities. Large product platforms have global users, developers, and partners, and they are localized to many different languages. Open source software can provide both important infrastructure capabilities such as e-commerce and localization, but it can also give access to diverse, active, and global communities of developers, users, and champions.

*6. Develop a business model that is global, not local*
A born-global approach is much more than an export strategy. Develop a business model where you acquire and sell products and services in different geographies. Pretty much anything "as-a-service" is an excellent candidate for a born-global company. The possibilities include software-as-a-service (SaaS), infrastructure-as-a service (IaaS), platform-as-a-service (PaaS), or backend-as-a-service (BaaS). With Freebird Connect, we decided at the beginning of our new, pivoted startup, that we would base our business model on a cloud-based software-as-a-service. Given that we were searching to create a way for our customers to collaborate and connect qualitative information to quantitative data, a software-as-a service business model fit our global aspirations.

## Conclusion

This article describes the mindset change I have undergone with respect to my views on early and rapid globalization. Looking back on the seven or so different businesses that I have started since completing my undergraduate degree (not including my consulting practice), I can trace my journey and how my perspective on startups has changed from “local and limited” to “global and practically unlimited”. My first few businesses served only the local market in the city I lived in. My last business sold products and services primarily to entreprise customers in the country I lived. My current business has been designed from inception to be able to serve global customers and it is easily scalable. If you are going to invest thousands of hours of human effort into a business, it makes sense that you create the business that has the greatest chance of succeeding. Local and domestic markets are insufficient. Tilt the odds in your favour and globalize your startup early and rapidly. The born-global approach provides an entrepreneur with two important advantages. First, the approach provides a powerful framework to help an entrepreneur go through the process of launching and growing a global business. Second, the approach requires the entrepreneur to think differently about creating and launching a startup. It requires a personal transformation in entrepreneurial mindset and perspective.

The purpose of this article has been to help prepare the minds of entrepreneurs so they look at the process of creating a global company differently. My journey as an entrepreneur is not over; I am still learning. In this article, I share recommendations developed based on my experience. On the surface, some may perceive the born-global approach as being similar to the conventional approach of phased internationalization. As shown in this article, they are very different approaches. The born-global approach holds real promise of becoming an important driver of local economies by helping entrepreneurs create and grow successful companies worldwide.

## About the Author

Robert Poole is an entrepreneur, a chartered accountant, and a recent graduate of the MEng program in Technology Innovation Management at Carleton University in Ottawa, Canada. Robert has 15 years of experience building and deploying business intelligence and social analytic solutions to global enterprises. As a consultant, Robert has provided his expertise to private and public-sector clients including federal, provincial, and regional governments. As an entrepreneur, Robert has created several technology-related companies and has appeared on CNBC's Power Lunch. Robert combines knowledge learned at the university with his practical experience to improve the fortunes of his company: FreebirdConnect.

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# Market Channels of Technology Startups that Internationalize Rapidly from Inception

Simar Yoos

> *"Most of the things worth doing in the world have been declared impossible before they were done."*
>
> Louis Dembitz Brandeis (1856–1941)
> U.S. Supreme Court Justice

The study of technology startups that internationalize rapidly from inception has increased in recent years. However, little is known about their channels to market. This article addresses a gap in the "born global" literature by examining the channels used by six startups that internationalized rapidly from inception as well as the programs they used to support their channel partners and customers. The six startups examined combined the use of the Internet with: i) a relationship with a multi-national, ii) distributors, iii) resellers, or iv) a direct sales force. They also delivered programs to support partners and customers that focused on communications, alliance and network development, education, marketing and promotion, and financial incentives.

This article informs entrepreneurs who need to design go-to-market channels to exploit global opportunities about decisions made by other entrepreneurs who launched born-global companies. Normative rules and practitioner-oriented approaches are needed to help entrepreneurs explain and apply the results presented in this article.

## Introduction

Startups that internationalize rapidly from inception are referred to as "born globals." These born globals are different from traditional startups in terms of their growth processes. While born globals internationalize rapidly from inception, conventional approaches to internationalization stress the pre-engagement phase of a startup, during which a startup first develops its domestic market and then thinks about selling abroad.

According to Gabrielsson and Kirpalani (2012; tinyurl.com/9l65o9b), born globals: i) perform better than startups that follow the conventional approach to internationalization; ii) use the Internet extensively; iii) target homogeneous customers that are concentrated globally; iv) offer very innovative products and services; v) are very effective at levering networks and business ecosystems; and vi) exhibit a greater entrepreneurial orientation than other firms. What we do not know is what channels to market, in addition to the Internet, born globals use and how they support their channel partners.

A channel to market is a set of interdependent organizations involved in the process of making a product or service available for use or consumption (Tybout and Calder, 2010; tinyurl.com/9hqhwnp). Servais, Madsen, and Rasmussen (2006; tinyurl.com/9cn3z4g) examine the global expansion of born-global firms and their use of the Internet as a channel to market. They conclude that born-global firms rely on the Internet more intensely than other firms.

Technology startups that internationalize rapidly from inception require relationships with individuals and

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organizations in the host country to overcome local market barriers and enter new markets (Johanson and Vahlne, 2003; tinyurl.com/8mljm7z). Reputation and co-operation with individuals and organizations in host countries are important for internationalization (Kotha et al., 2010; tinyurl.com/9b68kq5). In addition, born globals may leverage the channels and networks of large companies to expand rapidly (Coviello and Munro, 1997: tinyurl.com/955p49s; Grabrielsson et al., 2008: tinyurl.com/998amz9).

Therefore, examining "social ties independently of inter-organizational networks" (Ellis, 2008; tinyurl.com/9heekay) is important. Marlova, Manev, and Gyoshev (2010; tinyurl.com/9f5vbmo) confirm that networks are essential links to internationalization. They highlight the critical role that interpersonal ties have on alliance formation.

This article addresses a gap in the born-global literature by identifying: i) the channels to market used by six technology startups that internationalized rapidly and ii) the programs that they delivered to support their channel partners (i.e., support programs). Entrepreneurs can use the results to learn about decisions made by founders of born-global companies.

The article is organized as follows. The next section reviews what is known about channels to market as they pertain to born-global firms. Following this, the channels to market and partner-support programs of six startups are identified. The last section provides the conclusions.

## Channels to Market

Gabrielsson and Kirpalani (2004; tinyurl.com/cnmtekt) suggest that startups that internationalize rapidly mainly rely on two channels to market: i) the Internet and ii) a relationship with a large multinational firm where both the startup and the large firm are both dependent on the outcome. Gabrielsson and Gabrielsson (2010; tinyurl.com/8d7sc6b) concluded that: i) the frequency of Internet-based channel usage increases during the globalization process of the firm; ii) most firms use an Internet-based sales strategy based on a multiple-channel approach; and iii) the use of the Internet as a channel to market is more common among business-to-consumer than business-to-business firms. However, the greater usage of the Internet as a channel to market can often be explained by the digital nature of the products sold by firms, such as software and digital services.

The complexity of the market offering, and the extent to which it must be customized and configured in the sales process, affects channel selection and the programs a firm delivers to support its channel partners. Highly-customized offerings require the firm to deliver extensive configuration, design, training, support, and advice to customers and channel partners throughout the sales process. As a result, complex offerings must be sold through "high-touch" channels (e.g., field sales representatives, value-added partners), who are able to provide face-to-face interaction and guidance. Conversely, simple products that require minimal, if any, customization, training, support, or advice can usually be sold through "low-touch" channels, with little or no face-to-face support and interaction. Low-touch channels can reach more customers at a lower cost.

## Examination of Six Technology Startups

The author set out to identify the channels to market used by born-global firms as well as the programs they used to support their channel partners. For this purpose, the channels to market of six born-global companies were examined during their first three years after inception.

Each of the six technology startups examined: i) started exporting in the first 12 months after inception; ii) generated more than 50 percent of total sales through foreign customers and created more than six knowledge jobs three years after inception; and iii) were founded between 2002 and 2009. Moreover, none of these startups was a large-firm spinoff or a joint venture of large firms. All six companies operated independently for three years after inception without being acquired.

Table 1 identifies the six technology startups examined. For each startup, Table 1 provides the country and year in which they were founded, and brief descriptions of their market offers. Table 1 shows that the six startups were established in five countries: Australia, Brazil, Colombia, Israel, and the United States. Three of these firms were founded in 2002, one in 2005, and two in 2008. The sample included business-to-business and business-to-consumer companies.

## Channels to Market

The channels to market used by the six startups examined were organized into five channel types: Internet, Relationship with multinational, Distributors

# Market Channels of Technology Startups that Internationalize Rapidly from Inception

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**Table 1.** The six technology firms in the sample

| Company | Website | Country of Origin | Year Founded | Market offer |
|---|---|---|---|---|
| **Atlassian** | atlassian.com | Australia | 2002 | Software tools for programmers working on base code |
| **Dewak S.A.** | dewak.com | Colombia | 2008 | Custom development of help desk software products |
| **Griaule Biometrics** | griaulebiometrics.com | Brazil | 2002 | Software products to identify people on the basis of unique fingerprint features |
| **NOJA Power Switchgear** | NOJApower.com.au | Australia | 2002 | Low- and medium-voltage technology switchgear products |
| **Sproxil** | sproxil.com | USA | 2008 | File hosting service offering cloud storage, file synchronization, and client software |
| **Tufin** | tufin.com | Israel | 2005 | Network security products and solutions |

(Direct sales channels), Re-sellers (Indirect channels), and Direct sales force. Table 2 shows that none of the six startups combined all five channel types. It also shows that all six technology startups used the Internet as a channel to market; however, only two of the six startups used a relationship with a large multinational as a channel to market (Dewak S.A. and Sproxil).

Four startups relied on three channels, one of which was the Internet (Griaule Biometrics, Noja Power Switchgear, Sproxil, and Tufin). Two startups relied on two channels, one of which was the Internet (Atlassian and Dewak S.A.).

None of the six startups used distributors or re-sellers in combination with the Internet and a relationship with a multinational.

Only one company (Dewak S.A.) relied solely on the Internet and a relationship with a large multinational as

**Table 2.** Channels to market used by six firms in the sample

| Channel Type | Atlassian | Dewak S.A. | Griaule Biometrics | NOJA Power Switchgear | Sproxil | Tufin |
|---|---|---|---|---|---|---|
| **Internet** | Direct sales | Direct sales; online forums for customer identification | Direct sales | Direct sales; telecom support for local providers | Direct sales; telecom support to customers | Direct sales; telecom support to customers |
| **Relationship with multinational** | | Kayako | | | IBM | |
| **Distributors** (Direct sales channels) | | | Around the world | Around the world | | Around the world |
| **Re-sellers** (Indirect channels) | | | Around the world | | | |
| **Direct sales force** | Sales offices around the world | | | Sales offices around the world | Sales offices in Africa, India, and the USA | Sales offices in Europe, Asia Pacific, and North America |

# Market Channels of Technology Startups that Internationalize Rapidly from Inception

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its channels to market. It was the only startup of the six shown in Table 2 that offered custom software development.

These findings are consistent with studies that found that the Internet does not replace face-to-face sales (Gabrielsson and Gabrielsson, 2010: tinyurl.com/8d7sc6b; Moen et al., 2003: tinyurl.com/9enlltx).

## Partnership Programs and Website Features Used to Support Them

Table 3 shows that three of the six startups examined operated partnership programs. Table 3 shows that a variety of features in the startups' websites were used to support partnership programs.

**Table 3.** Features in the websites of the six technology startups that supported channel partners

| Startup | Website Features |
|---|---|
| **Atlassian** | • Product blog mentions<br>• Social media mentions<br>• Email newsletter<br>• Joint webinars<br>• Launch event marketing |
| **Dewak S.A.** | • No partnership programs |
| **Griaule Biometrics** | • R&D investment and technical support<br>• Limited information in public side of the website, sign-up process is required to obtain information |
| **NOJA Power Switchgear** | • No partnership programs |
| **Sproxil** | • No partnership programs |
| **Tufin** | • Lead sharing and pre-sales support<br>• Sales and technical training<br>• Certification program<br>• Audit license<br>• Discounted appliances for product evaluations<br>• Access to resources<br>• Partner locator |

## Channel Support Programs

The support programs the six startups delivered to their channel partners and customers were organized into the following eight categories:

1. **Educational:** training, clinics, open houses

2. **Networks and Alliances:** social ties, inter-firm (business) networks

3. **Promotional:** contests, salesperson bonuses

4. **Logistical:** physical inventory levels, national and regional warehousing

5. **Commitment:** channel partners are supported by all management levels

6. **Communications:** advisory councils, field bulletins, newsletters, performance evaluations, electronic data, interchange

7. **Financial:** payment terms, credit, leasing, returns, discounts

8. **Marketing:** direct mail, qualified leads, exhibitions, cash on delivery, marketing plan, advertising

The eight categories of support programs combined those identified by Rolnicki (1998; tinyurl.com/9ozgtto), Coviello and Munro (1997; tinyurl.com/9vyyebz), and Gabrielsson and colleagues, (2008; tinyurl.com/998amz9).

The categories were rated based on the frequency in which startups delivered one or more support programs in the category during the first three years from inception. For each of the eight categories, Table 4 identifies the specific support programs delivered and the number of startups that delivered at least one support program within that category.

Table 4 shows that all six startups delivered communication programs to support their channel partners and customers. Of the six startups, four delivered support programs in three categories: networks, education, and marketing. Three startups delivered support programs in the promotional category. None of the six startups delivered support programs in the logistical and commitment categories.

# Market Channels of Technology Startups that Internationalize Rapidly from Inception

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**Table 4.** Programs to support channel partners and customers delivered by six startups

| Category | Support Program | Number of Startups |
|---|---|---|
| **Communications** | • Present website in multiple languages<br>• Interact using Facebook, Twitter, Google+, Blogs, Feed Center, Skype, Live chat, or video conference<br>• Meet face to face to support large projects<br>• Provide remote access to human resources 24x7<br>• Prepare product reviews | 6 |
| **Networks and Alliances** | • Establish a network to acquire information on local markets, economic environment, regulations, competitors, business, and culture<br>• Partner with internationally renowned clients<br>• Secure referrals from well-established organizations<br>• Partner with leading vendors | 4 |
| **Educational** | • Establish a university relationship<br>• Deliver technical training<br>• Provide access to trainers and other educational resources<br>• Deliver a certification program | 4 |
| **Marketing** | • Provide marketplace visibility, mention products in blogs and social media, or organize launch events<br>• Attract leads from customers' websites<br>• Place company links on clients' websites<br>• Invest in joint events, webinars, and lead-generation campaigns<br>• Deliver free post-sales services | 4 |
| **Promotional** | • Design and deliver co-promotional campaigns<br>• Provide free access to tools<br>• Provide free licenses<br>• Provide tools to locate company's partners | 3 |
| **Financial** | • Offer price discounts | 2 |
| **Logistical** | | 0 |
| **Commitment** | | 0 |

# Market Channels of Technology Startups that Internationalize Rapidly from Inception

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## Conclusion

This article identified the market channels and corresponding support programs of six technology startups that internationalized rapidly from inception. Tables 2 and 4 inform entrepreneurs about the market channels and channel support programs of the six startups.

All six of the technology startups examined used the Internet for sales; however, five of the six startups relied on additional channels to reach international markets. This suggests that born globals need to go beyond using the Internet to internationalize early and rapidly.

The six startups examined also provided a variety of programs to support their market channels. While all six startups delivered communication programs, only four of the startups delivered programs focused on networks, education, and marketing.

Many entrepreneurs are able to take what is a great idea on paper, support it with well-prepared presentations, and secure access to grants or funding. However, they often then attempt to go straight to market without identifying their market channels and channel support programs. Overlooking these key steps can put the entire venture at risk. Equally, many entrepreneurs are tempted to internationalize rapidly by using only the Internet. The results presented here suggest that this is not enough; rapid internationalization requires a variety of channels from the start to market on a number of fronts.

Entrepreneurs can use the results of this study to identify the market channel options available to them and prioritize their investments in the programs required to support their partners and customers. However, more research is needed before entrepreneurs can effectively explain and apply the observations provided in this article. Normative rules and practitioner-oriented approaches are needed. For example, we need to identify the factors that influence a born global to select a specific combination of channels to market over other combinations (e.g., why and when will a born global use a direct sales force instead of a combination of distributors and re-sellers?). We also need to understand whether the nature of a startup's business affects the combination of channels to market it uses. For instance, can a startup that is not a custom software developer follow the example of Dewak S.A. and use only the Internet and a relationship with a multinational company? Further research to develop normative rules and practitioner-oriented approaches would help us find answers to such questions.

## About the Author

**Simar Yoos** has 15 years of experience launching and growing companies as well as helping international companies to solve commercialization-related conflicts. He is currently completing his MASc degree in Technology Innovation Management at Carleton University in Ottawa, Canada. His research examines how technology startups can accelerate their internationalization from inception. Simar also holds a Business Administration degree with specialization in Marketing from Univali (University of Vale do Itajaí) in Brazil, and he has a certification in International Trade and Negotiation Skills from Concordia University in Montreal, Canada.

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# TIM Lecture Series

# Growing a Global Company Anchored on Open Source Software

Fred Dixon

> *"Open source brought us a global market and we created a global company to satisfy that market."*
>
> Fred Dixon, CEO
> Blindside Networks

## Overview

The seventh TIM lecture of 2012 was presented by Fred Dixon, CEO of Blindside Networks, active committer to the BigBlueButton open source project, and serial entrepreneur. Dixon shared his experiences growing a global company and an open source project that was spun out of Carleton University in 2008. The event was held at Carleton University in Ottawa, Canada, on September 13th, 2012.

Richard Alam and Fred Dixon are the two original co-founders of Blindside Networks. Alam is an alumnus of Carleton University's Technology Innovation Management program. He was the first graduate student to complete a research thesis on how companies can make money from open source projects. His thesis led the way for many other master theses and projects to be completed at Carleton.

The TIM Lecture Series is hosted by the Technology Innovation Management program (carleton.ca/tim) at Carleton University. The lectures provide a forum to promote the transfer of knowledge from university research to technology company executives and entrepreneurs as well as research and development personnel. Readers are encouraged to share related insights or provide feedback on the presentation or the TIM Lecture Series, including recommendations of future speakers.

This report summarizes the presentation delivered by Fred Dixon and its key messages, including the lessons learned by audience members.

## Summary

Fred Dixon first described his experience as a serial entrepreneur and the early days of the BigBlueButton (bigbluebutton.org) open source project. He compared his previous experience as the founder of companies that owned proprietary technology with that of launching and growing a company that was anchored on software developed by an open source community.

Dixon explained that the business opportunity, as conceptualized in 2007, was for him and his co-founder to create a new global market anchored on an open source project and launch a global company that could best meet the requirements of the customers in this new market.

Dixon fondly remembered a key conversation with Tony Bailetti that occurred in 2007. "Fred, how will you make money from concurrently creating an open source project and launching a company?" asked Tony. Fred answered, "I do not know. However, I know how to figure it out."

Dixon compared his four-year experience as the CEO of Databeacon with the start of Blindside Networks. Cognos (now IBM) purchased Databeacon in 2004. The comparison went something like this: i) Databeacon had raised $13.5 million from venture capitalists, Blindside Networks had no money; ii) Databeacon had 65 employees who were paid every month, Blindside Networks had 2 employees (Fred and Richard) and no money to pay them; iii) Databeacon owned technology, Blindside Networks was developing code for an open

# Growing a Global Company Anchored on Open Source Software

*Fred Dixon*

source project; and iv) Databeacon charged $35k per license and a $100k original equipment manufacturer's fee, Blindside charged no dollars for the code it contributed to the BigBlueButton open source project.

There were at least six reasons that drove Fred and Richard to pursue their opportunity, regardless of the seemingly unfavourable comparison between the 2008 view of the Blindside opportunity and the Databeacon experience. First, they both believed that open source software was disruptive. What made open source disruptive was its ability to enable attractive business models that proprietary software vendors could not imitate. Second, they bet that the market for video conferencing systems to support educational institutions such as Carleton University would grow exponentially. Third, their business model was a customer-pull model instead of a supplier-push model. Fourth, open source attracted many talented individuals worldwide. Fifth, Blindside Networks had their first customer, Carleton's Technology Innovation Management program. Carleton paid for services, provided useful feedback to evolve the software, and provided references to other customers. Sixth, it was an opportunity for Fred and Richard to contribute to society as a whole.

Four important decisions were made early on:

**1. The business model for Blindside Networks.** There are various business models for a startup that wishes to leverage open source projects. Some of the most popular include: custom, integration and hosting services, appliance, certification, application store, dual licensing, freemium, software as a software service, original equipment manufacturer adoption, and so on. Blindside Networks chose to deliver custom integration and hosting services.

**2. The license for the code produced under the open source project.** Open source licenses can be organized into various categories (tinyurl.com/48257m). Open source licenses can be positioned in a spectrum anchored around two extremes, from "very permissive" license (e.g., MIT license: tinyurl.com/3vfsyal) to "very restrictive" license (e.g., AGPL license: tinyurl.com/czpvj57). The LGPL license (tinyurl.com/c6vubrw) was selected to cover the code produced by contributors to the open source project known as BigBlueButton. This permissive license made BigBlueButton attractive for other companies to embed all (or parts) of it into their commercial products, thereby accelerating improvements to the product and providing Blindside Networks a second customer base.

**3. The company's "imprint".** The organization imprint of a startup is very important. The imprint enables the startup to do things and learn about things that create value. The following phrase defined Blindside's organizational imprint: "We will not permit you to fail." The message to potential customers was clear: Blindside is a commercial company that would reduce your risk of using open source software and ensure deployments to your end users would be successful.

**4. Product-market focus.** Blindside decided to target the educational market. While many other markets for web conferencing systems exist, Blindside remained focused on the educational market to establish a customer base that could reference each other, thereby making it easier for Blindside Networks to obtain future customers in that market.

From 2008 to 2010, Blindside Networks focused on contributing code to the BigBlueButton open source project and building a healthy worldwide community of contributors and customers. These were hard years.

In 2010, Blindside Networks' business began to grow. Customers paid upfront for services. Blindside started managing the BigBlueButton server infrastructures of others as well as developing internal tools for monitoring, scaling, load testing, management of recordings, and so on.

After four years, the earlier comparison between the Databeacon experience and the Blindside opportunity looked quite different. Blindside Networks has a global and growing brand, it is delivered in 35 languages, its sale cycle is short, global diversification has reduced its risk, and its development team is comprised of talented individuals located all over the world.

The BigBlueButton Foundation will soon start operations. Its short-term mandate will be to accelerate the growth of the BigBlueButton ecosystem; its long-term mandate will be to make BigBlueButton the "#1 web conferencing system in the world".

# Growing a Global Company Anchored on Open Source Software

*Fred Dixon*

## Conclusion

Dixon concluded his lecture by highlighting the benefits of having a global mindset from the outset and the need for both the company and the open source project to stay ahead of their competitors. His concluding remarks were:

1. An open source project brings a global market.

2. Selecting the LGPL license was the right choice.

3. Interests of the customers in the community must come first.

4. Focus is good.

## Lessons Learned

In the discussions that followed the first and second parts of the presentation, audience members shared the lessons they learned from the presentation and injected their own knowledge and experience into the conversation.

1. An open source project can create a global market, which then needs to be served by the best talent available anywhere in the world.

2. You must balance an ecosystem driven by business and community priorities.

3. You must remain true to community members.

4. Community members include committers of code, customers, suppliers, complementors, and users.

5. Startups need to get paid, they are not charities.

6. You must stay ahead of competition.

7. Never transfer intellectual property out of the commons.

8. Open source projects bring together talented individuals distributed worldwide.

9. The problem that the community solves must be a hard one to solve.

10. Your brand name must be unique.

11. Open source projects allow you to observe how talented individuals behave before you hire them.

12. To build a brand, an open source project needs to fulfill a differentiated promise it made.

13. When targeting a specific market, trade shows are effective channels to customers.

14. Focus on being successful; nothing else matters.

15. Figure out how you will scale upfront.

16. Select a unique name for the open source project.

17. Startup founders are always learning.

18. Earning money is not easy; you must work very hard.

19. The highs are very high.

20. The social benefits of open source projects are very rewarding.

21. Success is in the execution, not in the planning or discussions.

### About the Speaker

**Fred Dixon** is CEO of Blindside Networks. He is a serial entrepreneur, having been CEO of two previous companies: Databeacon (acquired by Cognos in 2004) and OpenLava software. In 2003, he was selected as one of Ottawa's "Top 40 under 40" executives by the Ottawa Business Journal. In 1992, he earned a Bachelor of Mathematics from the University of Waterloo. He proudly wears his developer hat when communicating with other members in the BigBlueButton community.

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Start by asking yourself:

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- Emphasize the practical application of your insights or research.
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