

CEO UNDER DUAL CHALLENGE: ECONOMY CRISIS AND TECH INNOVATION

Submitted: 09/05/2018 • Accepted: 26/09/2018

Double blind peer review

Scientific Editor: Edson Sadao Iizuka

DOI 10.13058/raep.2019.v20n1.1116

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ABSTRACT

This teaching case focuses on the challenges for the survival of the software localization company Ccaps Translation and Localization – localization of computer programs is to adapt them to different countries, languages, and cultures. The case was developed to target Business Administration and Production Engineering undergraduate or graduate students, particularly in the disciplines of strategy and innovation. The case enables students to apprehend the concepts of the Disruptive Innovation and the Organizational Ambidexterity theories. The former describes the impact and challenges that threaten Ccaps' survival while the latter is a strategic tool to reach promising and viable alternatives to maintain the company profitable in the long run. The professor should guide the students through the critical analysis of Ccaps' competitive environment and its current and future capabilities, exploring the inhibitor (problems and restrictions) as well as the enhancer (solutions and leverages) features.

Keywords: Strategy; Disruptive Innovation; Organizational Ambidexterity; Teaching Case; Translation and Localization.

INTRODUCTION

During its 17 years of existence, Ccaps Translation and Localization, a company in the software localization segment headquartered in Rio de Janeiro, had never faced such a long-lasting crisis. Fabiano Cid, Ccaps' main partner and Executive Director, was making the final adjustments to a presentation with tough recommendations that he would submit to the company's Advisory Council meeting shortly. The year 2016 was still pointing to a drop in revenues after two difficult years in which Brazil had entered into one of its worst recessions in history. At the same time, the dramatic change in technology within the localization industry showed that, even if the crisis were to appease, there would be other challenges to face with the continuous advancement of technology strongly affecting this market.

Just the day before he had received more bad news. One of the company's main clients announced their decision to centralize their services for Brazil and Latin America, being provided up until then by Ccaps, with a competing global supplier. That meant that the company would lose its third largest source of revenue before the end of the year. Other clients had already ceased sending work or decreased their demand, but none of this size and with the possibility of impacting the business so much.

Ccaps' partners had always been proud of having built a solid company with high-quality services on the basis of absolute business professionalism. Fabiano had graduated in Languages and had had the dream of following a career in acting, but felt fulfilled by building a business that was very innovative in the 1990s, so he had decided to stay in the company.

Ccaps' Council, besides Fabiano, was formed by the company's Production and Administration & Finance Directors, a partner-investor, and an external advisor, a tax lawyer. This group was responsible for guiding the company's main decisions and approving its budget. In recent years, the Council had discussed and approved to lay off a group of junior staff and other difficult measures to balance the finances. Now it needed to help the Executive Director to not only turn around the continual drop in revenues in the short term, but also rethink the company's strategy to ensure its survival.

*THE LOCALIZATION MARKET*¹

Ccaps had been a localization software provider since the beginning of its operations. The localization service can be defined as the process of adapting a product or content to a new location or market with the aim of giving it the appearance of having been created specifically for this market, regardless of its language, culture, or original format, and includes the following elements:

- Modification of content according to local consumption tastes and habits.
- Adaptation of the design and layout to correctly display the translated text.
- Conversion to local requirements such as currencies and units of measurement.
- Use of appropriate formats for dates, addresses, and telephone numbers.
- Compliance with country and destination market regulations and legal requirements.

For this, localization industry is comprised by market players of different types, sizes, and foci. Language Service Providers (LSPs) are the companies that adapt products and services for consumption in multilingual markets. LSPs provide localization services for both translation (written texts on product labels, computer programs, websites, mobile phone applications, software documentation, contracts, and marketing communications) as well as for interpretation such as information exchanged orally in meetings and conferences, phone conversations, and medical and legal situations.

LSPs are classified by the number of languages that they work with. Multi-Language Vendors (MLVs) work with many languages and markets while Single Language Vendors (SLVs) offer services in a single target language, but being able to translate from more than one source language. In an intermediary market formed more recently are the Regional Language

¹ Website of the industry's main association, the Globalization and Localization Association (GALA) and reports from Common Sense Advisory

Vendors (RLVs) that cover regional areas of languages and markets such as Latin America, Eastern Europe, the Middle East, or Asia.

Large multinational technology corporations that have a large localization need for their products usually have an internal team of dedicated staff to safeguard the requirements of their corporate language and product internationalization since the development phase. These internal teams normally outsource some of the work to LSPs since it would not be efficient to maintain groups dedicated to localization for all languages and cultures where the companies operate.

For example, when Microsoft's Windows software was released for the first time in Brazil, it needed to be adapted to this market both in terms of the commands appearing on the screens and menus, as well as the manuals and help options. This adaptation was much more than simply translating the language because, especially in the program's visible part, the words and terms commonly have different sizes, leading to the need to adjust text boxes and layout. For the subsequent releases of new Windows versions, however, the adaptation was much smaller since a large part of the content had already been localized, leaving only small adjustments to be made. So, the demand for large localization services tends to decrease as large platforms become standard use in the market.

In more recent times, smartphone applications developed outside of Brazil and offered there generated a new type of demand. Different from the example above, these are individually smaller, but they are considerably greater in number. The Uber app is an example. It had to be localized in various places of the world not only for language translation, but the maps, means of payment, and any specific rule for each market.

MARKET SIZE

The language service industry was a market estimated at US\$ 38.16 billion in 2015, having grown by more than 60% from 2009 to 2015 according to data from Common Sense Advisory, a consulting and market assessment firm specialized in the sector, that points to a projection to reach a value of approximately US\$ 50 billion in 2019.

Despite the growth of the global market forecast for the coming years, the perception of Ccaps' leaders was that the Brazilian market was going in the opposite direction of this movement with a sharp downturn. This trend was also reflected in a drop of about 10% in the participation of Latin America and the Caribbean in relation to global revenues in the previous year, which was already a small participation in the world market (0.46% in 2014 to 0.42% in 2015). The main reason for this contraction was the economic crisis in the region, which made it lose relevance in comparison to other markets.

COMPANIES

Even participating with 0.42% of total market revenues, Latin America kept approximately 5% of the LSPs in 2015. This percentage, over ten times higher than the revenues, indicated a high fragmentation of the sector in this region.

Globally, most companies were small (about 60% with 2 to 5 employees²) and used the work of independent translators, allowing the cost to vary according to the work volume and thus maintaining better control over their financial results. Management and quality control of the work were generally done internally by the company's employees.

There were hundreds of thousands of freelancers working with translation all over the world. Some worked for direct clients or for multi-language suppliers, a trend that Fabiano, Ccaps' General Director, believed to be growing in the industry. In this way they represented a competition for the local or regional companies.

After three years (2012, 2013, and 2014) ranking among the five largest localization companies in Latin America by Common Sense Advisory, Ccaps dropped to seventh place in 2015 due to the drop in real revenues by around 25% associated with an unfavorable exchange rate.³

Multinational companies also worked in Brazil, the main one being Lionbridge, the world's largest LSP. For comparison purposes, in 2013 Li-

2 The Language Service Market, Report 2015 (Common Sense Advisory)

3 The Language Services Market, Reports 2010, 2011, 2012, 2014, and 2015 (Common Sense Advisory)

onbridge, a publicly-held company traded on the American stock exchange Nasdaq, grossed US\$ 490 million, while Ccaps in a good year reached revenues of approximately US\$ 1.82 million.

THE IMPACT OF TECHNOLOGY

The language service industry has been driven by innovation and there is an entire dynamic and robust research and development sector seeking technological solutions that result in better localization outcomes. Virtually all professionals in the sector, from translators all the way up to project managers and directors, already used some technological tool in their daily work in 2016.

The tools that most influenced the changes in the language services market were Translation Management System (TMS) and Machine Translation (MT).

The TMS controls, streamlines, and accelerates the translation workflow and can also be known as Globalization Management System or Global Content Management System. The TMS can be as simple as a web portal to transfer content between the client organization and its language services suppliers, but it can also become a complex system covering the entire company and automating the majority of file transfers and communication in the workflow between clients, localization companies, project managers, translators, editors, reviewers, the quality control team, and others.

Machine Translation (MT) is a computer tool that, without direct human intervention, translates content to target languages based on computer algorithms. MT tools offer speed and automation and can be used to translate large amounts of information involving millions of words in a fraction of the time required to do so by the traditional method with human translators and proofreaders. The output quality of the MT can vary considerably, requiring constant learning by the tool in the language pair that is being localized. MT can be based on rules (Rule-Based Machine Translation) or based on statistical models (Statistical Machine Translation), which means that, respectively, they may be composed of intelligent algorithms

based on grammar, syntax, and other rules or on the correspondence of standards with vast quantities of reference texts to find statistically more likely translations. The use of Machine Translation is often associated with human post-editing for a better accuracy of the result, especially when it requires a high level of quality and reliability in the content being localized. As computers become more powerful and the ability to replicate human neural networks becomes a reality, MT will also reach increasingly similar results as achieved by human translators.

CCAPS TRANSLATION AND LOCALIZATION

In the beginning of the 1990s, Fabiano thought that he would pursue a career in theater and decided to study Languages as a preparation to later write literary texts together with acting on stage. Soon after finishing college he even wrote a novel, but to maintain himself financially he started to work as a translator for a Brazilian LSP. In 1996 he moved to London with a temporary contract as a translator and worked there in this sector until 1999 when he moved back definitively to Rio de Janeiro. At this time Fabiano partnered up with a more experienced translator and together they formed Ccaps. His partner, however, soon received an invitation to an attractive position outside of Brazil and left the company. Fabiano decided to continue the business and began to look for investments to be able to set up a basic but professional infrastructure to provide localization to some of the multi-language service providers with whom he had interacted during his experience in Europe.

In 2000, Ccaps attracted resources from an external investor and began its path as a language services company. Initially its main client was one of the three largest global localization companies that sent a good part of its work into Brazilian Portuguese to the company. Ccaps increased its revenue by almost seven times (563%) between 2000 and 2001, hired its first staff, and reached an operational level that surpassed its founder's expectations. However, the business remained very dependent on its first and main client with approximately 70% of revenues linked to this large international player.

The shareholders realized that they needed to reduce this dependence and they defined two strategies to quickly change this situation. The first was to provide services to all the main international companies in the segment, promoting Ccaps' professionalism and high quality work through direct marketing initiatives such as lectures and sponsorship of sessions at international events and through advertising in global vehicles in the localization industry.

The second strategy was to join other localization companies of the same size as Ccaps' around the world to be able to offer services to global customers together. Jointly with 15 companies from different countries and five continents, Ccaps formed Milengo, a company headquartered in Berlin, Germany with sales force in Europe and the United States. Each associated company provided services in its geographical and linguistic area and together they could compete with larger multi-language vendors.

DIVERSIFICATION

For Fabiano, these strategies gave good results and proved right as the company's initial client soon decided to open a branch in Brazil and stopped using Ccaps' services in the following years. The diversification continued, and the number of the company's active clients began to grow continuously from 2002. Gradually, Ccaps reached a new business level by hiring or promoting directors to be responsible for its main areas, freeing Fabiano up to work on the company's strategy and on its internationalization.

Milengo was relevant as a sales force until 2009 when its international partnership no longer gave results due to operational problems. At that moment, Europe and the United States were facing some serious economic difficulties and Latin America gained momentum, as well as other emerging markets. Ccaps shareholders sought to create a new regional business model with operations in Brazilian Portuguese and Latin American Spanish. The company at that point became a regional supplier, or an RLV, seeking a new level of direct clients with interest in this market, also opening up a subsidiary in the US to facilitate its negotiations with clients.

To attract international direct clients, Ccaps team developed a franchise of events called “Think Latin America” that held annual meetings in different locations (Brazil, US, and Ireland), in addition to coordinating a digital channel to discuss the business in the region. This franchise was sold in 2014 to the Globalization and Localization Association (GALA), which multiplied it into different regions of the planet and related areas such as “Think India” and “Think Interpreting”. Ccaps remained part of Milengo until the end of 2016, but its participation would decline due to frequent increases of capital needed to keep it running and its small results.

EARNINGS

At the end of 2013, Ccaps reached its business maturity with diversified clients, a professional structure with senior executives (but relatively expensive for the sector), the highest level of earnings of its history, and a good financial return. But at the same time a severe economic crisis begins in Brazil and Latin America, which impacted the interest of clients for the region, strongly reducing the service volume.

Ccaps had been through periods of high growth, such as in 2001/2002 or 2008/2009, as well as periods of a certain degree of accommodation at new levels in the following years. Up until 2013, the company’s revenue growth made it possible for it to continue investing in training and in increasing its structure. However, a sharp drop in 2014 forced the company to make its first significant adjustment. According to Fabiano, “in 2014 we had to use all the ‘buffer’ we had accumulated in the previous years, but it still was not enough. We also cut a series of promotional activities, trips, and we were forced to eliminate 10% of headcounts.”

HUMAN RESOURCES

The number of full-time employees at Ccaps had grown consistently over the years. In 2013, the company had reached 25 employees in its Rio de Janeiro offices and in locations close to the company’s main clients. All its employees were professionals with higher education in fields of lin-

guistics and software engineering or for support in finance or sales. Every month Ccaps also hired dozens or hundreds of independent translators and engineers who provided non-exclusive services to the company from their work locations in Brazil or abroad.

In terms of organizational structure, there were three departments, with two directors reporting to the CEO (one of the three departments was Marketing & Sales, which was also led by the CEO). Each director had his or her own team of managers or coordinators who managed the internal work or subcontracted other companies and independent service providers to do the work.

In 2014, three positions of the operational teams were discontinued in order to adjust Ccaps to a lower budget level along with other measures to contain expenses.

RESULTS

Even with all the cuts in expenditures and staff, the results continued worsening. “We always plan for three scenarios for the coming year - optimistic, moderate, and pessimistic. 2016 has been a challenge because we are leaning toward the pessimistic”, said Ccaps’ CEO. After a more balanced year in 2015 due to the cuts the previous year, 2016 began with less job orders and with the anticipated announcement of discontinuity from one of the largest clients. According to Fabiano, “just the termination of this contract alone means a drop of more than 15% in our annual revenues. We already have a clear indication of a negative result for this year.”

In the company’s first years it was possible to reach about 25% of EBITDA. With the strong revenue growth in 2008/09, the margin returned to close to this level, but lost its strength again and the company’s leadership was concerned that the low returns would make it impossible for Ccaps to make new investments whether in technology, in maintaining its current clients, or in winning over new ones. If the downward trend would continue, the company’s very existence would be threatened.

PREPARING FOR THE COUNCIL

Already with the revenues and expenses for the first and second quarters of 2016 calculated, the finance area made it clear that a new adjustment would have to take place before the end of the year for Ccaps not to have losses again. So, Fabiano decided to share some ideas with his most experienced director and with the business team to better prepare for the Council's meeting.

The Production Director, Cassius Figueiredo, was a recognized professional in the localization market with 22 years of work experience, a solid educational background in Computer Science, a master's degree in Business Administration, and another one in Applied Mathematics. Before Ccaps, he had worked in some of the largest global MLVs where he had an ascending career up to managing the entire production area. He had been working with Ccaps since 2007 and was second in command in the company, leading it when the CEO was absent.

Cassius had been part of the company's Council for some years and knew the challenges well. Fabiano sat down with him in the meeting room after he finished interviewing some new external suppliers for Ccaps.

“Cassius, we closed the numbers for the Council meeting and I wanted to hear you about where the market stands...”

“Well, Fabiano, we have already talked about this. I believe that there is a dramatic change happening that goes beyond Brazil's economic difficulties. On the one hand some independent translators have improved and are already providing services to potential clients at a cost that we cannot match because they don't have our overhead. On the other hand, the clients themselves have invested in technology, using Machine Translation and translation memory to lower the costs of their projects. On top of that, the huge programs needing localization have already been completed, now they only need additions, and the new apps don't generate large projects.”

“I agree with you. And all of this is added to the recession and the loss of one of our largest clients, which will force us to take new downsiz-

ing measures this year. I would like you to consider what kind of cuts we can do in your area, the largest one in Ccaps, and let me know what you come up with as soon as possible. I am discussing the same topic with the other areas.”

“I can give you my thoughts right now. Since our business is becoming increasingly more like a commodity, my recommendation is a dramatic change in structure by eliminating the highest pay grades in order to allow Ccaps to survive the crisis. I know I am speaking against myself, but in the spirit of friendship and trust that we have always had, if I were in your shoes, I would fire me. It makes no sense to maintain an expensive production director like myself when there is so little business today in our market.”

Fabiano returns to his office even more concerned and with his head throbbing. He knew that his Production Director was right. Cassius was a “luxury” that Ccaps may no longer afford, but to relinquish his knowledge and expertise of the localization industry, which was far superior to any other manager in the company, could be a “shot in the foot”.

NEW BUSINESS

Fabiano then calls on Ccaps young Business Development coordinator, Raian Pollock, to understand how the dialogs with many potential clients for the company have been progressing. Working now at Ccaps for two years, Raian had grown in the company from being an intern all the way to becoming a sales coordinator within a short time. Fabiano believed that Raian had a talent in building relationships with clients and because he was only 20 years old and still going to college, he brought the best of the so-called “millennium generation” to the company, with strong drive to face challenges and the ability to think innovatively. Together they had created a new automated tool for acquiring clients that reached a huge group of professionals with interest in localization for a fraction of the previous investment.

“Raian, give me an updated position, please, on the current clients and the many leads that we have issued to the market.”

“From the point of view of the satisfaction of our global clients, we are still at the top. We are leaders in quality in Latin America. The national market, however, continues to give less value to Ccaps because this is a market focused on low prices, as you know. We have put new processes in place, but we still have higher costs than most of our competitors. Despite this, we close with new clients every week!”

“True. Unfortunately for the most part they are small clients that take up a lot of the time of our production managers and generate a low result.”

“Fabiano, I have no doubt that we need to invest more in technology. With full automation of these processes, smaller clients will generate a positive result for Ccaps. According to our analysis, it is possible to lower production costs by 30%, which goes straight to the bottom line. The fragmentation of our market is a fact and we have to generate value in the long term even from these small deals.”

Raian believed that artificial intelligence would soon arrive to the localization market and even to the sales area. For him, Ccaps should invest everything that it could in automating its processes and prepare soon for this new world. For Fabiano, this was a necessity, but the immediate survival of Ccaps depended on its traditional clients and it seemed difficult to assess the dynamics of this new market.

CHALLENGES AND THE FUTURE

Ccaps was consolidated in a very competitive market thanks to its credentials of quality, reliability, and security of information that it had built over its years of hard work. New technologies and recession seemed to be changing the rules of the game in the localization market and Ccaps' credentials no longer seem to be enough. Its way of working needed immediate change. But it was difficult at this point in time for lack of resources to invest. The country's recession had dilapidated the company's reserves and the investments needed to update its technological base would have to be significant, especially for incorporating Machine Translation and a Trans-

lation Management System with workflow automation. So, there was no more time to lose and the decisions of change needed to be taken today so that the impact of declining results and the loss of one of the three largest Ccaps' clients could be faced by the company still in 2016, ensuring a 2017 with healthier results.

Fabiano went to the Council meeting divided. On the one hand it was clear that there was a need to take short-term drastic measures in order to maintain Ccaps' balance. On the other hand, to further reduce the company's structure, this time letting go some of its best professionals, or to cut all the investments planned, seemed like going back to the past instead of preparing Ccaps for the future. He was looking forward to having a good discussion with both the directors and the two external members in hopes of them being able to help him rethink the company and find ways that would allow Ccaps to regain the good position that it had enjoyed up to just a short time ago.

TEACHING NOTES

EDUCATIONAL OBJECTIVES

The Ccaps case is recommended for disciplines in Strategy & Innovation areas, in Business Administration and Production Engineering undergraduate courses or Business Management *lato sensu* graduate courses, particularly in sessions that address the impact of innovation on the survival of established business models. This case could also be applied in sessions focused on the discussion of types of business models as long as the professor provides information that enables this alternative use, such as giving examples of business models applicable to this economic segment, some of which are used by Ccaps competitors and their potential strategic implications.

The case seeks to foster student learning by the following means:

- Knowledge improvement - impact and challenges of innovations on organizations as presented in the Theory of Disruptive Innovation proposed by Christensen (1997) and the Theory of Organizational Ambidexterity proposed in by Duncan (1976). Duncan's (1976) primacy and relevance are reiterated by O'Reilly and Tushman (2013). Both concepts have been deepened over the years by various academic studies.
- Building skills - creativity and abstract reasoning; data and scenarios analysis ; identification of problems, threats, and opportunities; and formulation of strategies.
- Development of attitudes - receptivity to changes, amplitude, and intellectual multidisciplinary.

These objectives can be reached through discussions raised with this case in the classroom. There are two simultaneous challenges for the survival of the company, one of short and another of long-term: one of the most serious recessions in Brazil's history (Rosa, 2016) that changed the competition landscape in the industry and set up the immediate issue, and the transforming changes of technology in the localization market of soft-

ware, which is the fundamental issue to be unveiled and dealt with by the students during the case analysis and discussion.

By using the inductive process inherent in problem cases such as this one, students should infer the concepts from the Theory of Disruptive Innovation and of Organizational Ambidexterity and, above all, to articulate their theoretical and empirical implications while considering promising strategic alternatives in order to perpetuate Ccaps in view of the two challenges mentioned above.

The case's method does not require previous theoretical readings. However, if the professor prefers to follow a hybrid method that best fits the characteristics of the class in which this case will be discussed, he can assign the following texts to be read beforehand:

- Theory of Disruptive Innovation: chapter 2 by Christensen (1997).
- Organizational Ambidexterity: O'Reilly and Tushman (2004).

SOURCES OF INFORMATION

The information used for preparing this teaching case was obtained from primary and secondary sources. The primary sources were interviews with Ccaps executives Fabiano Cid (Executive Director), Cassius Figueiredo (Production Director), and Raian Pollock (Business Development Coordinator). Contact was also made by email with the leader of Common Sense Advisory, the main global company of market research and consulting in the localization segment, Don DePalma, Chief Strategist and Founder. The main secondary sources were the website and the annual reports from 2011 to 2015 prepared by Common Sense Advisory, the reports from the business strategy consulting firm Blau Consulting for Ccaps in November 2013, the Globalization and Localization Association's website, the websites of major global localization companies, Ccaps' website and internal materials such as the annual and quarterly reports and planning data (protected by a non-disclosure agreement regarding the prohibition of external use of some competition and financial data).

QUESTIONS FOR DISCUSSION

The questions proposed below may serve as a basis for the discussions that will arise in the classroom, guiding students in the discovery and exploration of multiple approaches for analyzing the case's fundamental issue.

These issues are derived from various perspectives (internal, external, merchandising, and technological) and their related problems and solutions exposed by Yu and Hang (2010).

1. What are the main aspects and challenges of Ccaps' current and future competitive environments?
2. What are Ccaps' current capabilities and those that Ccaps needs to develop in order to survive in the future competitive environment?
3. What strategic actions will Ccaps need to take to fill the gap between its current and future capabilities and at the same time survive in the midst of one of Brazil's most serious recessions?

SUGGESTED TEACHING PLAN

The suggestion is to discuss the case by following the list of questions proposed above.

In addition to the discussion questions, some assignment questions are suggested related to the immediate issue in order to guide the preparation of the teaching case by the students. These questions can be delivered together with the case for prior or in-class reading, immediately before the discussion in small groups.

Providing these questions is optional as they are not essential for discussing the case. Their application should be decided by the professor depending on his assessment of the class' maturity level.

- A. What does Ccaps need to do urgently to survive?
- B. What is the impact of new technologies on Ccaps' business?
- C. Do the actions already taken by Ccaps help in the long term?
- D. Is Ccaps' business model viable?

The discussion in the classroom with all the students (plenary session) can be started with an opening question that connects the theme with their everyday reality and this way encourages engagement: “Who in the room prefers using a software in Portuguese instead of in English or another foreign language?”, followed by other questions still from the final consumer perspective, such as “would someone like to explain their reasons?”. To visually enrich the discussion and make it more tangible, you can show two equal screens of the same software but in different languages (in Portuguese and English, for example) as an additional resource.

After this warm-up exercise, it is expected that students reach a “state of mind” suitable for the teacher to address the first discussion question.

Question 1 (related to slide 1 of the Board Plan): What are the main aspects and challenges of Ccaps’ current and future competitive environments?

This question and its repercussions will encourage the students to analyze in a multidisciplinary way the immediate and long-term challenges for Ccaps to survive, especially from a strategic perspective.

This will create the conditions to discuss with the students the concepts underlying Organizational Ambidexterity as defined by Raisch and Birkinshaw (2008) as the ability of an organization to reconcile the effectiveness and efficiency in the present while still adapting to changes in its external environment that will determine its future. The Ccaps case illustrates this issue. The company needs to adapt its current costs structure to generate resources that allow it to invest in technologies and in the training of the team that will make it possible to remain competitive in the software localization market or even open up new lines of work.

The essence of the Theory of Disruptive Innovation will also emerge while stimulating classroom discussion when considering the current and future threats to Ccaps raised by Machine Translation (MT) and maximized by neural networks and artificial intelligence. As conceptualized by Christensen (1997), the theory consists in the unfolding of technologies that bring with them different “values” than those of mainstream technolo-

gies and are initially lower in the dimensions of performance that are more important for clients that dominate the market at that time. Thus, the current predominance and the better quality of human translators should be overcome by MT in the not too distant future, creating disruption and relevant changes in the market.

Transition question to “Question 2”: Do you think that the Ccaps team is prepared to face the future?

Question 2 (related to slide 2 of the Board Plan): What are Ccaps’ current capabilities and those that Ccaps needs to develop in order to survive in the future competitive environment?

The transition question proposed (which should be adapted to the style of the professor who will lead the case’s discussion) allows to make the transition from analyzing the external environment (competitive environment) to the internal environment (Ccaps’ capabilities). As a consequence, students will have their eyes opened to the pillars and gaps the company will face to reach Organizational Ambidexterity. The threat represented by the Disruptive Innovation to Ccaps’ existence is also reinforced here.

To do this, the professor can guide the discussions to encourage the students to make the connection between the capabilities to be developed by Ccaps and the fundamental issue, which is disruptive technology. Tushman and O’Reilly (2002) proposed the concept of “ambidextrous organizations” as a solution to deal with the innovations of discontinuity starting from the principle that even without an isolated and autonomous structure, an organization can be equipped with resources, processes, and values to manage its sustainability and the disruptive innovations. Furthermore, according to Yu and Hang (2010), Organizational Ambidexterity is an aspect of the internal perspective of organizations with characteristics that are both inhibitory and enabling of Disruptive Innovations.

The evolution of the TMS with the progressive automation of processes may increase Ccaps’ productivity. As proposed by the coordinator Raian Pollock, the company could lower its production costs by 30% with

work flow automation. This investment could immediately reverse the EBTIDA decline mentioned in the case.

Furthermore, MT will be essential to provide services for clients at lower costs and keep the company competitive, in addition to preparing it for the disruptive innovation, which is the transition from human translators to fully computerized translation. The adoption of MT technology will allow the company to prepare for this change and get ready to face the new market. There is a trend that in the future large companies (current localization and translation services clients) acquire high quality MT tools and smaller companies opt for using free and enhanced tools such as Google Translator. So, even in the long term there could remain a market niche for Ccaps, though reduced.

Ccaps should get ready to work with a smaller team, whether in-house or outsourced, and possibly should reposition its core business, thus requiring other business skills. The professionals needed for this new market will be those who have an expertise in using technology and those who are able to develop long-term relationships with clients. In a way, the skills needed are more related to marketing, sales, and software engineering and less to translation.

Transition question to “Question 3”: And what does Ccaps need to do now?

Question 3 (related to slide 3 of the Board Plan): What strategic actions will Ccaps need to take to fill the gap between its current and future capabilities and at the same time survive in the midst of one of Brazil’s most serious recessions?

The transition question proposed aims to guide the students into a discussion of the fundamental issue with promising strategic alternatives to perpetuate Ccaps by applying Organizational Ambidexterity concepts. It is expected that the discussion gives rise to principles of exploitation, which are associated with activities such as “refinement, efficiency, selection, and implementation”, as well as of exploration that refers to notions such

as “search, variation, experimentation, and discovery”, as formulated by March (1991).

Any set of actions proposed by the students to tackle the situation may lead them to think about the adequacy of the company’s cost structure and to search for new paths, whether through purchasing off-the-shelf technology or its development through business or academic partnerships. However, the company’s cost structure was not adequate to its level of income at the time of the case. Not only did it not generate enough results, but also the low margin did not allow the company to make the investments it needed for the future.

Therefore, Ccaps’ great challenge is undertaken simultaneously two transformations that are vital for its immediate and future survival, which becomes even more challenging and complex because they are different in nature and in their timeframe. The most immediate one is making its current business model more efficient, flexible, and with an expanded customer base. The other transformation is a long-term one but that cannot be postponed due to the accelerated evolution of Artificial Intelligence in the localization and translation markets, which implies in a far more radical change in its business model. In the latter, Ccaps needs to become a high-technology company with strategic partners who provide substantial financial and technological resources.

Ccaps’ ultimate goal should to become, through these two vital transformations and in accordance with the typology proposed by Karrer and Fleck (2015), a “long-term ambidextrous organization”, ensuring the company’s survival in the long haul.

BOARD PLAN

The board suggested aims to facilitate a structure for the professor to record the analyses that arise in the classroom as a product of the issues for discussion proposed above. The intention is to facilitate the guiding without inhibiting the desired creativity from the students and their plurality of views and approaches. The Board Plan should serve as a reference for the possible and desirable records to be made by the professor on the class-

room's board as a result of the discussions, which means that it is a flexible "flight plan".

The suggestion is to fill the board out from left to right in a logical sequence as the scope and discussion of the case's fundamental issue unfolds. This should not be regarded with rigidity because it is likely that the classroom discussions will lead the professor to record some additional points relevant to any slide on the board that had already been previously explored and filled in.

There is only one board, but it is divided into three slides with details as shown below and corresponds to the discussion questions:

1. Slide 1 ("Competitive Environment"), corresponding to discussion question 1.

Current Environment	Future Environment
<ul style="list-style-type: none">• Translation is a relevant component of localization services with a high execution cost (freelancers, IT, revision, management)• The market has LSPs with different roles (MLVs, SLVs, and RLVs) and some large companies with their own teams ("insourcing"). Fragmented market!• Global market with robust growth• Brazilian market with significant reduction and strong crisis• Strong, fragmented, and heterogeneous competition (including freelancers)• Intensive use of technology (TMS and MT)• MT as a growing threat (trend toward automation)	<ul style="list-style-type: none">• Low cost automated translation using MT and other technologies (artificial intelligence in particular)• Technology as an even greater competitive differentiator• Commoditization of the market and reduction by the widespread automation and by "insourcing"• Small applications replacing large software, reducing localization market. Continually less demand.• New markets for localization even more specialized ("niche") and fragmented

2. Slide 2 (“Ccaps’ capabilities”), corresponding to discussion question 2.

Current Capabilities	Future capabilities required
<ul style="list-style-type: none"> • Hybrid team (own and out-sourced) • Brand: RLV focused on Latin America • Leadership in quality in Latin America • Reliability and security of information • Low use of technology • Focus on large clients 	<ul style="list-style-type: none"> • Cost efficiency • More flexible team with a predominance of Sales and IT specialists • Greater flexibility in quality and price • More diverse customer base • More intensive use of technology

3. Slide 3 (“Ccaps’ Action Plan”), corresponding to discussion question 3

Short-Term Actions	Long-Term Actions
<ul style="list-style-type: none"> • Reduce fixed costs, especially with personnel • Diversify the customer base, especially in niches not covered today • Intensify the use of technology and processes to reduce cost and time • Implement a more flexible pricing model 	<ul style="list-style-type: none"> • Become a high-technology company using sophisticated tools for translation and for automating the process flow • Look for strategic partners for providing substantial financial resources • Build technological partnerships with academic institutions and with other companies • Give priority to market niche of companies that probably will not acquire high quality MT tools (current localization and translation services clients) and neither will use free tools (smaller companies). • Implement an even more flexible pricing model

CLOSING THE CASE'S DISCUSSION

An alternative to closing the case's discussion could be to propose a challenging and innovative situation that is more comprehensive. A suggestion would be to discuss the impact that the development of Artificial Intelligence (AI) will have on companies, professions, and on people's lives. The localization industry is being completely transformed by AI, whose power has been dramatically leveraged by the evolution of algorithms and by the computational neural networks interconnected by the Internet. It is expected that in a few years a software will do the work of translators and engineers just as good as them, but much faster. To ensure that students continue developing their thinking after the discussion, a suggestion can be given to read an *O Globo* newspaper article "Especialista alerta para perigo de avanço de inteligência artificial" (A Specialist alerts to the danger of the advancement of artificial intelligence), which shares the thoughts from an USP Economics Professor, Ricardo Abramovay, concerning the future scope of Artificial Intelligence (AI) and its impact on companies, jobs, and on the lives of individuals (SETTI, 2016).

A teaching case does not presuppose one single or "correct" answers. The case could be closed with a challenging question such as this one to possibly instigate students to think more about the topic outside of the classroom.

WHAT HAPPENED LATER

Typically in Brazilian culture students are curious about the unfolding of the case. Because of this, below is an account of the facts that took place after the narrative of the case was closed.

At the Council meeting, the CEO presented the forecasts for the remainder of 2016 and, pressed by the financial situation and by the external members, suggested a drastic reduction in the company's functional payroll and the need to develop a diversification and technology investment strategy. The council members agreed with the assessment and approved these actions by consensus. Later, together with his partner, Fabiano Cid eliminated one of the organization's levels – the directors immediately be-

low his position, thus following and expanding Cassius Figueiredo's recommendation. The team managers or coordinators began to report directly to him and the positions with the highest salaries were eliminated, which brought savings to the payroll that would only be possible otherwise by eliminating about 10 operational staff. The company also took other cost containment measures, the most significant one being to move its office, which resulted in a 30% reduction in this cost, while still enlarging the company's office area, which was an effect of the fall in rent prices as a result of Brazil's severe recession.

At the end of 2016, however, there were still no resources for investments because the costs with laying off senior staff and with moving the office exceeded the maintenance of the old structure. However, the expectation was to take steps toward a more lean and agile platform, freeing up resources and working on new projects quickly. In parallel to the change and layoffs, a strategic plan was developed for diversifying the services and for investing in technology, implemented on the following year. An agreement was made with a Canadian company in the first quarter of 2018 that added localization to English- and French-speaking markets and the resources for making needed investments in technology and in closing deals with direct clients.

The actions implemented by Ccaps do not constitute the only possible solution, but it is quite likely that this path will come up as one of the possibilities by the end of the classroom session.

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