

## Executive Summary

### IIM – Internationalized Instant Messaging

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This document addresses the Technological Feasibility of an Internationalized Instant Messaging system.

Instant Messaging (IM) is a technology that allows geographically dispersed users to communicate synchronously using any device with an IM client application connected to the Internet. For communication to occur, current IM systems require a shared language between participants.

Internationalized Instant Messaging (IIM) is a response to the communication obstacles caused by the language barrier. It innovates IM by using a broker service that translates messages sent and received between participants. The main advantage is that allows participants who speak different languages to interact in their mother tongue. We include evidence of the benefits of an affordable, language-agnostic communication system such as the one proposed here.

IIM is particularly suited to global organizations developing strategies to manage cross-cultural communication, which are already losing valuable trading opportunities because of the language barrier.

From the overall target market of Multinational Corporations (MNC's) we chose the segment of MNC's from English speaking countries with subsidiaries in China. China's openness to international trade, high economic growth, soaring foreign direct investment, combined with evidence that a high percent of MNC's already consider setting up regional headquarters in the country, are positive indicators of both the size and the growth prospects of the target market. We provide evidence that the language barrier is costly for corporations, and existing workarounds are not only expensive but also inefficient.

IIM would benefit MNC's from English speaking countries with subsidiaries in China by allowing coordination and interaction between headquarters' and subsidiaries in their native tongue, retaining the power of communicating in a preferred language: headquarters' write and read in English; subsidiaries write and read in Mandarin.

The proposed system will be competing in the Instant Messaging industry, in the segment of Corporate IM. The IM industry already has a tremendous user base that is still growing fast. The corporate IM segment is also growing fast but lacks products specifically designed for it. IIM introduces a corporate solution that is able to ride the wave of growth predicted for IM and corporate IM in the next years.

Competition is fierce in the industry, but none provides a substitute for our revolutionary solution. Success in patenting our system will protect us with proprietary technology that we can licence. We provide evidence that our system's architecture is highly scalable and sustainable, with pathways to growth in several dimensions: increasing the number of languages supported, and expanding towards other markets.

Behind the project there is a young, multi-cultural, creative team, with the know-how to take it forward.

## Overview

Instant Messaging (IM) technology allows real-time, synchronous communication between geographically dispersed groups. Its growth rate is faster than that of e-mail or the browser, and it is beginning to offer application sharing, wireless services, automated alerts, and even support for other types of data transmission such as audio and video.

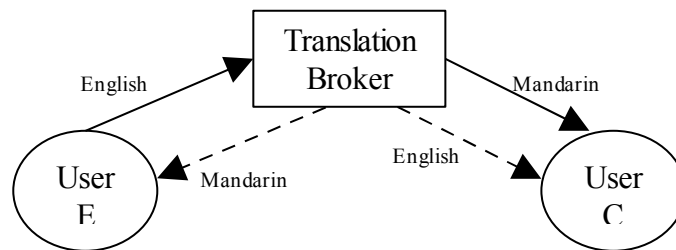
As the IM user base increases tremendously, users from more and farther away regions of the world are participating using widespread client applications such as AIM, MSN, Yahoo Messenger and ICQ.

Successful interaction of users in current IM systems requires the compromise on a common language shared between participants in a session.

Our proposal consists of a novel service based on IM, one that introduces an external translation service mediating participants' messages.

Consider the following scenario illustrating an IIM session between an English (E) and a Chinese (C) user:

User E writes a message in English to user C. The message is intercepted and translated by the translation service, reaching user C, in Mandarin. User C can reply in Mandarin and the message will be read by user E in English. Note that both users can choose to see both the original and the translated messages.



The system's architecture considered the following research results:

- Frequent IM'ers have long sessions, with fast-paced interactions, which is ideal for current translation systems <sup>1</sup>
- IM is an interactive "real-time" communication operation where the parties involved can refine the context of messages just by trying again with different words or different combination of words
- IM, like e-mail and text-messaging, has a specialised language associated with it. Unlike e-mail, the language of IM is still evolving; consequently, a decoupled architecture like ours is scalable and suitable to evolution <sup>2</sup>
- The terseness and directness of the IM medium is useful for asking questions of colleagues, scheduling meetings and appointments, and coordinating with family members or work fellows <sup>3</sup>

The benefits of IIM reside on the ability to:

- Include users who cannot or would rather not communicate using a language other than their native one
- Differentiation based on respect for cultural issues, since language is a strong manifestation of culture
- Act as a language learning and development tool
- Reduce usage of other communication mediums such as long distance phone calls and video-conferencing

Companies already experience language problems in their contact with foreign markets and are losing valuable trading opportunities because they lack language skills in certain languages. The language diversity, increasing communication intensity and increasing scale of operations, aggravate the problems presented by the language barrier.

An IIM service brings compelling benefits and added value to global businesses, in the form of an affordable, language-agnostic communication medium.

Our initial plan is to handle English-Mandarin communication, and the reasons are threefold:

- Entry in a fast growing market with tremendous growth potential.
- Research indicating higher quality of translation between these two idioms.
- Added value of translation of these two conceptually very different languages

Our following analysis will showcase arguments supporting the commercial viability of IIM.

## The Market

Our customer target are Multinational Corporations (MNC's) from English speaking countries with subsidiaries in China. The average 9 percent annual growth of China's economy in the past 25 years, its openness to international trade, as well as its 15 percent annual growth of foreign trade, created a *tidal wave of foreign enthusiasm* <sup>4</sup> with a corresponding increase in communication intensity and needs. In 2004 there was an inflow of US\$55 billion of Foreign Direct Investment (FDI) that were added to the total of US\$550 billion of stock of direct investment in the Chinese economy. Forecasts indicate an increase of FDI to about US\$80 billion a year by 2009 <sup>5</sup>. Over the past ten years, an average of 30.000 foreign-funded businesses per year were approved to operate in China <sup>6</sup>. Surveys also reveal 92 percent of MNC's consider setting up regional headquarters in China in the future <sup>7</sup>.

These facts are positive indicators of both the size and the growth prospects of our target market.

Over the last thirty years, effective cross-cultural and intercultural communications in MNC's has been recognized as an increasingly important source of competitive advantage in global corporations <sup>8</sup>. Communication across the language barrier has been identified as the single most severe operational problem by high-profile CEO's <sup>9</sup>. Already 33 percent of English companies experience language problems in their contact with foreign markets, losing valuable trading opportunities because they lack language skills in certain languages <sup>10</sup>. For MNC's operating in China, this is a significant business-impairing problem <sup>11</sup>.

The language barrier is seen by corporations as somewhat insuperable <sup>12</sup>. Companies either choose to ignore it, or employ workarounds such as:

- adoption of a common language (English) across subsidiaries <sup>13</sup>
- hiring staff based on multilingual knowledge
- expatriating staff that will function as language intermediates
- using professional interpreters and translators
- staff training, formation, development and international assignments

The cost of each of these workarounds grows in proportion to the increase in communication intensity and scale of operations.

Our solution provides a revolutionary way to overcome the language barrier problem by giving geographically dispersed users the possibility of interacting in their native tongue, accelerating response times and improving communication quality. Its value comes from:

- lubricating the functioning of subsidiaries in their relation with remote Headquarters, increasing efficiency
- reducing communication distortion caused by the lack of language skills
- reducing information distortion caused by employees with language skills who develop as information gatekeepers, filtering, delaying, disturbing the communication flow and undermining the chain of command
- improving the development of informal internal networks.

Furthermore, our solution can potentially reduce costs by:

- using existing Internet infrastructures for communication, which are cheaper than any other alternatives
- reducing the number of expatriates, multilingual staff, training and formation, interpreters and translators
- replacing voice and data communications, which are typically the third or fourth largest operating expense for most companies <sup>14</sup>

In the context of MNC's from English speaking countries operating in China, synchronous communication for co-ordination and interaction between headquarters' and subsidiaries is done in their native tongue, retaining the power of communicating in a preferred language: headquarters' write and read in English, subsidiaries write and read in Mandarin.

## The Industry

We will compete in the Corporate Instant Messaging industry, a segment of the broader IM industry. This segment is still in its infancy, growing fast and with plenty of opportunities ahead.

Currently, there are approximately 560 million private IM users worldwide, and despite the lack of products specifically tailored for the corporate market, 70 percent of corporations are already using some form of IM. The estimated number of corporate IM users in the workplace today is around 60 million, and forecasts indicate that it will reach over 300 million during the next 3 to 5 years<sup>15</sup>.

There is another positive trend leading to an influx of corporate IM'ers: it is already used by 62 percent of 18 to 27 year-olds today<sup>16</sup>, as they move into the labour market they will institutionalize it as a working tool, one they are comfortable and familiar with, just like e-mail.

These facts signal a need for more and better corporate IM solutions and services right now, to be able to ride the wave of growth for the next years.

Our competitors in the industry are big names such as Microsoft, Yahoo, IBM and AOL. Other smaller firms include Jabber Inc., IMLogic, Bantu, Odigo, Effusia and Trillian, which are differentiating their products by providing features such as auditing, logging and the capability to record live feeds of video-messaging sessions. Studies reveal corporations that use bespoke IM products are willing to pay an average of US\$11.95 per user<sup>17</sup>.

Our competitive edge comes from providing an innovative solution to a specific problem for which no other effective answer exists or is in sight. We can foresee the interest of our customers, based on their concerns regarding the problems our solution reduces or eliminates. Steps are being taken to submit an application for a patent of our system's architecture to the European and American Patent Offices. We will then be protected by proprietary technology that we can licence.

In terms of business model we chose a subscription based service which assures a constant revenue stream, lower operation costs, and stronger customer loyalty. The architecture for our system is highly scalable, allowing quick expansion into other markets and languages.

In terms of long term sustainability, we plan to expand in three dimensions. The first is towards other market segments:

- MNC's from English Speaking Countries with subsidiaries in any country where English is not the mother tongue, such as Asian (besides China), Middle East, and South America countries
- MNC's from English Speaking Countries outsourcing in China. Outsourcing has grown at a compound annual growth rate of more than 30 percent over the past five years, and China is already one of its major destinations<sup>18</sup>
- MNC's domiciled in any country and with subsidiaries in many countries

The second is towards other markets:

- Governmental agencies that provide cross-cultural services (Foreign Office/Emigration departments)
- Education institutions with large numbers of foreign applications
- Global Humanitarian organizations that need to synchronize their aid operations on a timely fashion and across many countries and languages

The third is towards other industries:

- The video games industry, supporting on-line multi-player games where players chat in "real-time" with each other
- Private IM users

Other possibilities include licensing our proprietary technology to competitors or becoming a take-over target from one of the industry leaders.

## The Team

We are an heterogeneous group of post-graduate students with strong R&D skills, fully committed to this project in which we strongly believe. As a business, our main goal is to become very profitable and a take-over target. In terms of personal aspirations and goals, we would like to be part of something big and valuable that we are responsible for, and we would like to make history within the computer-mediated-communications industry. Together, the team combines the following advantages:

- We are all avid and proficient IM users
- We are a multi-cultural team consisting of two Europeans and two Chinese, all fluents in the English language
- We have the know-how required to take the project forward
- We have knowledge of and connections within the IM industry
- We have business connections with China
- We have strong analytical and quantitative skills
- We have good understanding of the major trends in International Economics
- We are creative, hard working and work well as a team

We also realize the team has limitations that can undermine the success of our enterprise and need to be addressed, namely:

1. We are a young team without first-hand experience in entrepreneurship
2. We lack business skills such as customer management, marketing and product commercialization
3. We are very limited in terms of personal funds

Being aware of these limitations we are open to and willing to consider the following options:

- Extend our team with up to two members with entrepreneurial, business and management experience
- Sharing control with suitable candidates that are able to make it a successful run
- Apply for grants
- Participate (and win) in entrepreneurship competitions

Below is a brief bio for each of the team members.

Jorge De Castro, [jorge@bcs.org.uk](mailto:jorge@bcs.org.uk)

Jorge is a Portuguese born individual who's been living in English speaking countries (UK and USA) for over 7 years. He is currently attending the MSc. in Human-Computer-Interaction at University College London. Before attending this MSc. Jorge has worked as a software developer and engineer within the software services industry for over 5 years in Portugal, Germany, France, Spain and the UK. Jorge is responsible for the research, technical development, deployment and maintenance of the enterprise.

Pedro Maia Gomes, [p.gomes@lse.ac.uk](mailto:p.gomes@lse.ac.uk)

Pedro is 23 years old. He is a Portuguese citizen currently attending the MSc. in Economics at the London School of Economics. Pedro has strong academic experience in Quantitative research and Macro-economics, with already several communications presented in international conferences. He has done relevant academic work in the Netherlands, Portugal and the UK. Pedro is responsible for the financial, accounting and market research for the enterprise.

Meng Liu, [m.liu@ucl.ac.uk](mailto:m.liu@ucl.ac.uk)

Meng is a Chinese citizen currently attending the MSc. in Human-Computer-Interaction at University College London. She has a very good knowledge of Instant Messaging, has interests in social networks, and a good academic experience in usability. She is responsible for technical support in those areas, and for bridging the cultural and language gulf between our target markets.

Bo Zou, [b.zou@ucl.ac.uk](mailto:b.zou@ucl.ac.uk)

Bo is a Canadian citizen born in China. He is 26 years old and is currently attending the MSc. in Human-Computer-Interaction at the University College London. Bo also holds degrees in Visual Arts, Physics and Applied Psychology. He is an accomplished designer with strong academic usability experience. He has some work experience in the software industry as a Web designer and usability tester in China and the UK. He also runs an e-business shop selling Chinese Antiques to the rest of the world through e-bay for 2 years now. Bo is responsible for design and technical support, and also for bridging the cultural and language gulf between our target markets, helping us to provide customized solutions to our target market.

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