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# COMPANY PAPERS

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April 2012

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# Exceed Expectations

While there is a set of considerable change in the European and Romanian socio-economic and political landscape, Codespring is striving to highlight the aspects that impact the ITC sector.

The 7<sup>th</sup> edition of Codespring Company Papers focuses on bringing to your attention the events that have recently triggered our market, our business and our minds. Following the previous market reporting and analysis, today we have tried to describe how the offshore and nearshore candidates have been passed through the market's sieve. The findings reveal a more powerful tractor force towards the CEE region, namely Romania.

Among the new industry segments on the horizon, we have chosen to have a glance at the LBS (Location Based Services) perspectives. Recently launched on the Romanian market, we have screened for you Qulto, a best of breed integrated collections system. Finally we have shared our reflections on HTML5, the fifth revision of the World Wide Web core language, HTML (HyperText Markup Language).

As a leading thought that guided the providers of all the innovations and developments studied under the present paper, we are now sharing with you the strategy that we are determined to follow in 2012: exceed expectations.

**Codespring Team.**

## Q1/2012 Sifted Offshore/Nearshore Candidates

The general outsourcing landscape of Europe in the first quarter of 2012 showed a tendency to prefer nearshore candidate companies opposite to the Asian offshore candidate companies. Romania positioned itself as a viable solution both in terms of costs and skills. Large companies involved in IT and Telecom opted for Romania as an outsourcing provider, but also European SME's chooses Romanian companies to develop their projects. Cluj-Napoca, as the 2<sup>nd</sup> hub of software development and software services companies in Romania, after Bucharest (the country capital city) attracted important contracts during Q1 of 2012. Codespring itself experienced positive results with clients choosing to locate their outsourcing projects and support services in Romania, rather than in more exotic locations.

The Central Eastern European country group, namely Ukraine, Poland, Romania, and Bulgaria brings the best value to the Western European companies looking to outsource completely or part of their IT Services and Software Development initiatives.

### Romania on the Global IT Landscape

Reaching an IT&C market value of 7 billion EURO in 2011 with its 8000, 00 companies involved in software development and IT services, powered by a workforce 23% engaged in the Science and Technology sector, Romania is one of the regional IT poles in Europe.

According to "The Global Information Technology Report 2010-2011" of World Economic Forum, Romania's rank in the Global Competitiveness Index for 2010-2011 was of 67 out of 139 countries submitted to the study. The fact that in the past five years, Romania has always been included in the first half of this index provides the chances for this country to take advantage of some resourceful structural advantages. How does the Romanian ITC sector hold on among the global and regional economic turbulences? What did convince major companies and innovative SME's to sign development and service level agreements with Romanian, in our case with Cluj-Napoca companies? It is a cumulus of factors that we will describe in the following lines.

### Favourable ITC Environment

Romania attracts capital and projects dedicated to the ITC sector by several specific traits of the market, of the regulatory landscape and of the infrastructure. With a fair availability of latest technologies and laws regulating the ITC

activity, addressing its major issues, Romania has scored "best" in 2011 for internet & telephony competition<sup>(1)</sup>.

Some essential achievements worth to mention in the ITC infrastructure sector too: Romania is counted among the first 20 economies<sup>(2)</sup> in the world for International Internet Bandwidth, Mb/s per 10000, 00 pop.; Ranked 22<sup>nd</sup><sup>(3)</sup> and 23<sup>rd</sup><sup>(4)</sup> in the world for tertiary education enrolment and mobile network coverage, Romania is also situated in the first tier in terms of scientists & engineers availability<sup>(5)</sup> and of accessibility of digital content<sup>(6)</sup>. In addition, the number of secure internet servers and Romania's capacity of producing electricity from various resources gives the country an impulse to foster ITC investments.

### Romanian ITC Readiness

ITC sourcing specialists and investors find Romania as a complete surprise: all parties, individuals, businesses and Government are fairly ready to adopt and develop ITC products and services. There is a tradition and a clear talent pool in STEM (Science Technology Engineering and Mathematics) areas, Romania being in Top 50 of the world. Individual ITC buyer's sophistication<sup>(7)</sup> is also noticeable, even more as Romania is considered a convergent market, quickly adopting newest technologies. Domestic businesses propelled Romania as the 13<sup>th</sup> country in the world importing computer, communication and other services.<sup>(8)</sup>

On top of all the straight-form-the-root preparedness, Romania's Government has an established strategy and vision in what the ITC sector is concerned. Let's remember that Romania was the first Eastern European country that built computers, and one of these historical institutions is situated in Cluj-Napoca, Transylvania.

### ITC Usage in Romania

Romanians are active Internet users, they rapidly have embraced virtual social networks and one can see this in the impact that Romanian ITC has on the population's access to basic services. Mobile phone subscriptions and broadband Internet subscriptions are among the highest in the world. Romanian hardware market is expected to grow up to 1.0 billion USD by 2015,<sup>(9)</sup> while PC sales forecasts indicate a value of 870 million USD in 2015<sup>(10)</sup>. Software spending is estimated to reach 305 million USD by 2015.<sup>(11)</sup> IT services market value is expected to be of 469 million USD in 2015.<sup>(12)</sup>

In terms of high-tech exports rate compared to exports of goods rate, Romania is ranked 29<sup>th</sup> in the world out of 139 economies submitted to the study<sup>(13)</sup>.

There is also an interesting activity seizable at patent application level. Romanian inventors leverage the country ranking up in the first third of the featured indexes. But, the truth is that a lot of intellectual capital and innovation is being subcontracted in the work and benefit of Romania's main ITC partners: Germany, USA, Netherlands, and United Kingdom. A situation that is logical due to the necessary investments in ITC projects.

### Romanian Creatives Make a Difference

In close relation to the ITC usage, one should also know that Romania is net creative services exporter. At European level Romania has recorded the biggest EU export growth rate of royalties and licence fees (92.6) during 2002-2010<sup>(14)</sup>. Romania has also achieved the 3<sup>rd</sup> EU export rate (33.6%)<sup>(15)</sup> for R&D services and the 3<sup>rd</sup> EU export growth rate of architectural, engineering and other technical services (32.1%)<sup>(16)</sup> during 2002-2010. Bottom line: creative industries account for 7% of the Romanian GDP<sup>(17)</sup>.

Exactly because of this searched after creativity, deliverable in multiple languages more and more investors are setting ground in Romania, namely in the cities of Bucharest, Cluj-Napoca, Timisoara, Iasi, Brasov – the main centers for outsourcing and custom software development in the country.

### ITC Talent Confirms Again

At the crossroads of cultures, Romania deploys multilingual IT specialists. According to recent research, 97% of young Romanians speak English, more than 47% speak another language and 26% speak two foreign languages<sup>(18)</sup>. For example in Cluj-Napoca, aside English as an international language, the locals speak at native level German, Hungarian and speak with professional fluency French or Italian.

The top 5 polytechnic universities (one of them being the Cluj-Napoca Technical University), added to 53 sector universities (of which we mention Babes-Bolyai University of Cluj-Napoca) and 175 colleges with technical profile propelled Romania as the leader in Europe and 6<sup>th</sup> in the world by the number of certified IT specialists. Romania is counting in average 9000 computer science graduates per year, 600

of Cluj-Napoca universities provenience. The country is also proud of being the 1<sup>st</sup> in the EU in what implies Computer Science and Mathematics International Olympics Winners, 3<sup>rd</sup> in the world after Russia and China.

### Q1/2012: Time For Decision

The underlying pressure between ITO supply and demand in 2011 has been resented in the first months of 2012 too. Europe's economy forced 2011 European ITO buyers to put a stress on the price-quality lever. They still have to improve cost efficiency but they also needed to access higher or at least similar quality. In the process, it appears that India has lost the quality competition, while other Eastern European countries may not be on Western European ITO buyer's radars due to various factors: language barriers, service delivery, costs per man-hour.

As Romania still provides the 2<sup>nd</sup> cost leadership in ITO sector in Europe, many ITO buyers turned back from Asia (namely India) here or decided to outsource software development processes for the 1<sup>st</sup> time. In both cases, the main stake is to shorten the time to market (TTT). What Romanian ITO providers promoted in the recent years is enhanced communication, no hidden agenda and deadline oriented delivery - three main aspects that have a great impact upon the quality of the overall outsourcing process.

As we have witnessed ourselves during Q1 of 2012, requests for Cluj-Napoca ITO providers were headed towards two main goals: a) to undertake full software development lifecycle and deliver final products to market in Europe or Worldwide; b) to overtake existing IT processes from dropped out suppliers in other parts of the world.

### The Romanian Way for 2012: Exceeding Expectations

As a conclusion of our investigations and interviews with our local and regional peers, Romanian ITO providers are determined to win more market share by entering in strategic partnerships and mature agreements. As there is still a long way to go, Romania, Cluj-Napoca and Codespring - by default - chose as a winning strategy for 2012 to exceed expectations of their ITO customers. (D.C.)

#### References:

(1-8) / the [Global Information Technology Report](#) 2010-2011, of World Economic Forum

(9-16) /Romania Your Partner for 2012, Romanian Centre for Trade and Investment Promotion

# LBS (Location Based Services) Perspectives

After fulfilling our need to be *connected* as quickly as possible, with as many people as possible, the need of understanding our *current location* and using the outmost possible of your context came to surface. Why carry a special navigation device, a tourist map, a local events guide or other obsolete items when you can have it all on your smartphone? Why call your drivers, your bank agent or your RE agent, when you can easily locate and track the entire vehicle fleet, the closest ATM or the property you are looking for? Yes, LBS (Location Based Services) can solve all these queries.

What drives LBS industry growth? How is the society being reshaped? What are the dilemmas that LBS are facing? These are the main questions that 2012 LBS industry players are addressing.

## Location. Location. Location.

It is a well known epitome that you might have heard several times in your life, most probably from real estate agents. It is just their way to express the importance of location. From ancient military strategies and urban developments, choosing the right location for a specific action or edifice, knowing and controlling the territory was a premise for success. It is still available in our times. If, on one hand you - as a person want to know how to move around, on the other hand, others - as a person or service providers, want to know your location. It's a two-way road.

Technology made it easier once again. While our parents used to carry a map when exploring new sites and ran to the public phone booth to call for advice, we are now carrying only a smartphone.

## LBS Enablers

As of 2012, we are witnessing great LBS experience. First, there are the technological platforms enabling LBS: Cell ID (Cell Identifier), GPS (Global Positioning System), aGPS (assisted Global Positioning System) or BSN (Broadband Satellite Network). Secondly there is the hardware for it - multipurpose (like smartphones) or singlepurpose (navigation device, object tracking device, etc.). Third, there are the user parties - personal, corporate and institutional. The criteria that must be considered are: location accuracy, range coverage, security of service, optimal costs.

## Demand for LBS

The current LBS market responds to 4 main requests: to navigate, to find people and objects, to advertise&inform and to network. Historically, each of these request was dealt independently by solutions with specific software and hardware. As the mobile technology evolved so much in the past years, smartphones and other similar personal devices tend to replace single purpose devices.

The sectors that integrate most of the LBS technology are military, transportation and logistics, telecom and health. Recently entertainment and mobile commerce are quickly rising, accompanied by a set of personal service set: weather forecasts, networking. Real Estate industry is becoming a VIP demander for location based systems and solutions. Steadily, the overall economy is adopting LBS as we are doing more and more actions „on the go“ straight from our personal devices.

## Codespring and LBS Experience

Location Based Services is part of our company's expertise as we have been involved in several large projects. Codespring has integrated location based solutions for terrestrial and maritime fleet management, for navigation, for resources tracking with dynamic distribution, for security systems.

Codespring has also developed its' own Traffic Enforcement Camera warning system for iPhone. It handles different type of traffic cameras, speed limits in metric and imperial unit systems, has a fully customizable speed camera database, map feature with track recorder, statistics and Google Maps integration provided you have Internet connection. As most laser radar detectors draw your attention too late to photo enforcement systems, iSpeedCam might be your ultimate companion to avoid speed tickets.

Codespring's work has impact on both business indicators and users' experience. We are also involved in deploying convergent technologies such as: IPTV, Voice over IP, Voice call continuity, Digital video broadcasting. We have also been involved in developing several social networking oriented LBS functions. Our technical team is constantly involved in the integration of latest hardware for delivering state-of-the-art communication systems.

### Location Based Apps Performance

The mobile industry stimulates the development of various applications using location tracking features. Some of the key functions to follow are: the number of operating systems supported, if web application is available or not, the way of user identification, the location update frequency, behaviour for stale location, location history, sharing of temporary location, sharing location with friends, precision levels configurable per friend basis, option to manually configure location, check into nearby place, custom locations labels, source of friend's name and photos, maximum distance to friends locations.

What worth mentioning, based on the previous list, is the degree to which social network has an impact in the development of LBS supported applications.

### The Privacy Issue

Probably the most debated topic related to LBS adoption is the privacy around your location. Is it safe to share your location? Different generations may answer this question in different ways. While most of the world smartphone owners use the device in a conventional way, the tech-savvy and younger generations are using it in ways that even their developers did not think of.

While for some, sharing their location is something normal and fun, for others it is subject to confidentiality and privacy matters. In both cases, one fact is sure: in case of health problem, criminal attack or some sort of incident it is safer that the person can be located by security officers, emergency aid or friends.

In this respect some privacy-enhancement technologies (PET) have been developed. PETs may consist in simple on/off switches or in sophisticated solutions that use anonymization techniques or location obfuscation techniques.

### Reasons for Enabling LBS Feature

As we learn from the United States population, that is by far the one using the most of LBS in the world, the main reasons for sharing one's location are: navigation, weather information, traffic information, city locations and reviews.

Secondly, service providers like restaurants, hotels or shopping centers pushed mobile commerce by launching coupons and promotions for LBS users. This turns out to be a

good reason to use LBS for catching offers and benefitting from promotions.

And again, sharing location enables friends to learn in real time where they are and meet at common location: restaurant, museum, cinema or other.

Particular situations are recommended to take advantage of LBS: a patient seeking for the nearest hospital, a lost child looking for the closest police station, an old person looking for some type of assistance, a driver looking for a car service and many other similar contexts.

### Doing Things Different and Better

In the future, all parties: technology providers, users and standards regulators - should focus on making these services safer, more useful and better. The rising intensity of LBS usage opens new business opportunities and new community-related opportunities. With the latest Augmented Reality (AR) technologies, LBS performance and user experience can be increased. Travelling and navigation already started this process. It is up to our collective imagination to find the right way to do this.

### What About Industrial Consumers?

We are particularly interested in how the industry is intaking the LBS phenomenon. Consecutive to our own development experience we find a great value in integrating LBS feature in industrial applications at corporate level. The type of services that may be deployed are related to the Supply Chain Management, Inventory Management, Customer Relationship Management, Smart Transportation and Systems Infrastructure.

The greatest leap will be achieved in the nearest future when identification, connectivity and inference will achieve seamless convergence. Dynamic systems exploiting at the maximum LBS capabilities will come alive when materials and objects will be provided with specific sensors that will facilitate the constant stream of information. Some say this is too futuristic but some developments are already in place.

Analysts forecast the Location Based Services (LBS) market to reach values of the order of tens of billions in the next five years. As Europe and Asia are adopting more and more this type of service, we are also curious how the general LBS landscape will look like in 2017-2020. (D.C.)

## Qulto: Discovering Collections

Qulto is the essence of 13 years' expertise in public collections automation systems. Committed to support cultural heritage and education institutions to step in the future, Qulto is designed to be the ambassador of information technology systems in the CEE region.

### Discovering Collections

While discovering the specific needs of each collection type, the developers have built dedicated solutions for libraries, museums and archives. Qulto integrated collections systems handles both physical and digital material, facilitating the efficient management of collections. Via the aggregator and integrator solution – Monguz, your collections will join a broader network and comply with interoperability standards. Enhancing collaboration and participation of customers and their specialists in the implementation of each system, Qulto addresses evolving requirements.

Setting common grounds with each customer is essential. That is why Qulto is deployed in multiple national languages, is operated by field specialists and strives to achieve high end-user satisfaction. The faceted search and the tools for communicating with your target audience are key success factors in the new-age collections' universe.

By providing innovative IT solutions and exquisite service to the customers, Qulto aims at helping reveal the richness of cultural heritage originated from the CEE region.

### The System

Qulto is an integrated system built to serve multiple types of collections: libraries, museums, archives. Secondly, it handles data related to both classic repositories and digital assets. Next, it gears specialized and non-specialized users with versatile tools that facilitate all management aspects. On top of all, Qulto helps institutions and organizations to implement and comply with sector specific international standards in the cataloguing, management and communication of collections. In brief, Qulto system may be presented as follows:

#### Qulto Libraries

Dedicated for the libraries sectors, Qulto Libraries solves all automatable tasks and



Fig. 1: Qulto official logo.

Source: by courtesy of CULTWARE LLC

operations as required by the international and national standards.

It covers all aspects from acquisitions, cataloguing, OPAC, circulation, serials, lending, tracking to management and marketing. The RFID module handles procedures using RFID technology: identification, inventory, anti-theft gates, self-checking, and drop-box.

#### Qulto Museums

Designed for the museology field, Qulto Museums addresses all specific aspects, having the capability to respect both museum and library standards. It handles the cataloguing, acquisitions and management of diverse items while documenting their "life-long" history in the institution.

#### Qulto Archives

Tailored in respect with the archiving requirements, Qulto Archives answers to all particular characteristics of this activity. It enables a time-efficient management of the archive items while keeping track of all changes and accesses.

#### JaDoX

Created for the future recording format of collections, JaDoX is the Digital Asset Management software. It handles all types of digital born objects and may be the foundation for the next step: digitized local, national and international collections.

#### Monguz

Planned to search, harvest and display results, Monguz is the dedicated integration and aggregation software. Monguz makes your collection open to the world using the international standards for exchanging records and harvesting databases. It interrogates local or remote databases and classifies the data according to multiple criteria. It is platform-independent and has web 2.0 features.



**Portal24**

Aimed for helping institutions to better serve their patrons, Portal24 brings your collections alive. It enables all web 2.0 functions and displays public data made available through the Qulto's modules. It can also become a useful marketing and communication tool.

**Qulto / in brief**

**Motto:**

One system for all collections.

**Vendor:** CULTWARE LLC

**Mission:**

to provide innovative solutions for public collections

**Technology Partners:**

- iKron Kft.  
system administration
- ODIN Technologies Budapest Kft.  
RFID hardware
- Codespring SRL  
ASP / SaaS services  
software development

**Expertise:**

- a) Management:
  - Repository environments analysis
  - Collection automation project planning
  - Coordination of resources
  - Coordination of all migration processes
  - Service Delivery
- b) Technical know-how:
  - technology infrastructure design
  - dedicated software development
  - system integration
  - application and service
  - open source
  - ASP / SaaS services

**Customer portfolio:**

+ 300 projects implemented for single-branch and large cultural institutions (libraries, museums and archives)

Open format: **YES**

**Infrastructure:** applications and services provided on 365x24 hours running servers hosted in professional server hotel

Website: [www.qulto.eu](http://www.qulto.eu)

**Qulto Delivery Model**

Qulto is about helping teams involved in the management and the administration of collections to be more effective and preserve the materials by a smarter handling. Due to the cumulated experience over the years, it has been set a specific delivery model as to make the whole process leaner.

There are 4 main stages: setting the agreement, implementations, live changes and maintenance. Each stage has its own steps. Nevertheless, Qulto provides the expertise and tools to help you through the process.

**Core Features**

Qulto is generating added value through its main core features as follows:

**Openness:** Qulto has been built on open source operating systems in order to lower the total ownership costs and to leave room for growth. Nevertheless, they have developed versions for all solicited working systems, so that Qulto runs on any computer and system your institution may have chosen.

**Effectiveness:** Qulto counts effectiveness by the number of simultaneous users and consecutive entries that a system may support. Qulto is currently supporting over 4.000.000,00 entries /day for a national system.

**Standard compliance:** Qulto has been built according to the MARC standards. In order to satisfy all existing standards, the system is designed so that it may reach and handle data organized by different standards too (MARC, USMARC/MARC21, ISBD, Museumdat, etc.)

**Reliability:** Qulto system is a tested solution, certified by each competent authority, running 24/7. The system has been built in cooperation with the customers and the development team strives to keep the system as a cutting-edge solution in the industry.

**Step in the Future**

Qulto provides the road map to the future of collections management and administration. It is up to you to decide if you will be prepared for this step. Qulto is here to power your track to the world cultural heritage in the new era.

There are two ways for driving the change: preparedness for change and technology partnership.  
(D.C., by courtesy of CULTWARE LLC)

## HTML5

HTML5 stands for the fifth major revision of the World Wide Web core language, HTML (HyperText Markup Language). As stated by the W3C (World Wide Web Consortium) **“HTML5 is still a draft”**. Having its roots in the early 90’s HTML has continuously evolved and standardised as HTML 4 by 1997. Contemporary developments aim to build implementations that enhance interoperability and deployed content. HTML5 incorporates HTML4, XHTML1 and DOM2HTML.

Why are there some parties that mitigate the impact of HTML5? What does HTML5 supporter group aim for? Will HTML5 meet the standardisation requirements by 2014?

### Back to the Basics

Our demarche follows a simple logic: understanding what is the current state of HTML5, understanding the goal of the developers and formulating our opinion. For this, we found interesting the way the development of HTML5 is being approached and went directly to the developers’ published drafts.

In opposition to former HTML versions, HTML5 specifications are qualified as finished only after minimum two complete implementations are being tested and approved.

HTML5 strives to define a single markup language that can be written in HTML syntax and XML syntax. It also attempts to specify elaborated processing models that stimulate interoperable implementations. HTML5 not only refines the markup for documents but it also proposes markups and APIs for rising idioms, as for example various web applications.

### HTML5 Syntax

When building a programming language defining its syntax is crucial. HTML5 may use both HTML and XML syntax. It is compatible with HTML4 and XHTML1 documents, but is no longer based on SGML specific features. It also has specific parsing rules and elegantly solves the hosting of untrusted documents.

At the moment, for character encoding there are three options available under the HTML syntax, while for the XML syntax the rules described by XML specifications are applicable. MathML and SVG elements can be used inside a document.



Fig. 1: HTML5 official logo.

Source: <http://en.wikipedia.org/wiki/File:HTML5-logo.svg>

### HTML5 Language

In order to be more pertinent for the current necessities, HTML5 has a set of new elements that worth mentioning: section, article, aside, hgroup, header, footer, nav, figure, figcaption, video and audio, embed, mark, progress, meter, time, ruby, bdi, wbr, canvas, command, details, datalist, keygen, output. It also has a set of new attributes - charset (on meta) or async (on script) and a set of global attributes applicable for each element - contenteditable, contextmenu, data-\*, draggable, dropzone, hidden, role, aria-\*.

Some elements from preceding versions are completely absent either because their effect is purely presentational and are better handled by CSS, or because their usage alters usability and accessibility or simply because they are not used often enough, are confusing and better dealt by other elements. Implicitly, some attributes and all presentational attributes of HTML4 that are better handled by CSS are absent.

### HTML5 APIs

A set of new APIs (application programme interface) are very helpful in creating Web applications: API for playing video and audio, API for offline Web applications, API that permits Web application to register itself for certain protocols or media types, and many others.

### The Crossfunctional Approach

Probably one of the greatest things that HTML5 achieves is crossfunctionality. With HTML5 you can build web powered apps that run on a huge diversity of devices from tablets, smartphones, or TVs the degree of reuse and the amount of public you can reach by deploying your app through a vast palette of devices is clearly higher than in the case of native supported only apps. It reuses the JavaScript and leverages the CSS for a different user experience.

In spite of various criticism, HTML5 has the capabilities of providing great UI. For the input side it enables geolocation, multitouch, device orientation and speech recognition. For the output side it presents markup and styling with semantic tags and CSS3. In addition, it is suitable for all networking purposes and lately it has a great capability for offline work.

Web tends to be open by default. Therefore, HTML5 is open and it is being built around standards. It is also very well supported as there are reliable Libraries, debugging tools and most important a supporting community that you can refer back to.

### The Rivalry

Certainly HTML5 has its rivals. Let us just remember that the great discussion began when Apple's Inc. former CEO, Steve Jobs has declared in his public letter "[Thoughts on Flash](#)" of April 2010, that "The avalanche of media outlets offering their content for Apple's mobile devices demonstrates that Flash is no longer necessary to watch video or consume any kind of web content. [...]. New open standards created in the mobile era, such as HTML5, will win on mobile devices (and PCs too)."

Today each mobile operating system has its native development kit: Android has Dalvik, iOS has Objective C, Windows Mobile 7 has XNA/Silverlight, BlackBerry has Java, and Web OS has HTML5. Implicitly each of them promotes the idea that the best way of developing a certain app is to build it specifically for the hardware it should run on. And yes, there is truth in this approach since higher integration with the specific hardware/platform may be achieved, since you will get support for the latest hardware innovations and in terms of user experience you will get the native look and feel. Overmore, battery power and speed control is more likely to be achieved.

#### HTML 5 in short:

Filename extension: **.html, .htm**  
Internet media type: **text/html**  
Type code: **TEXT**  
Uniform Type Identifier: **public.html**

Developed by:  
**W3C** (World Wide Web Consortium)  
**WHATWG** (Web HyperText Application  
Technology Working Group)

Type of format: **Markup Language**  
Extended from: **SGML**

Open format: **YES**

Source: <http://en.wikipedia.org/wiki/HTML5>

### WEB Is the Future

As web continues to spread around the globe and the cloud concept took clear shape and meaning for everybody, it is more and more clear that the Web will stimulate an inflorescence of applications. HTML5 is a language that is understood and it allows programmers to implement their innovations now, as later it may be too late.

Often when you want to test an application it makes sense to first develop it for the web, see how users like it, use it or criticise it and then continue by developing that certain app for a variety of devices. A good example of how critical is the access to as much users as possible is the case of several international magazines and media providers. Whether you use a BlackBerry, an iPad or a tablet the content that you want to publish should be accessible and should be delivered at the highest quality.

The same situation is met in the case of games or various business applications. We know now that companies allow their employees to choose their own personal devices – how can you ensure that everyone has access to one designated application? The web seems quite a majoritarian solution. Of course some customization is needed, feature detection and so on, but there is room for innovation.

HTML5's current challenge is to achieve broad interoperability for the full specifications by 2014. (D.C.)

## Jobshop 2012 / Cluj-Napoca

April 2012

Codespring team will be happy to meet you at the Jobshop organized by BEST (Board of European Students of Technology) and the Technical University from Cluj-Napoca, between the 24th and 25th of April 2012. On the occasion of its 18th edition, the JOBSHOP will host 30 companies at the well-known venue: Students' Cultural Hall.

## Open Days 2012

April 2012

We continue the tradition of Codespring Open Days event as one of the best times to interact with our teams and learn more about us. The official date is the 10th of May and the location is our new Cluj-Napoca headquarters on 29, Frunzisului

## 3<sup>rd</sup> Anniversary of Codespring Office in Odorheiu-Secuiesc

March 2012

We are happy to inform you that on March 02, 2012 we have celebrated for the 3rd time (!) the opening of Codespring's office in Odorheiu-Secuiesc (Székelyudvarhely or Oderhellen). We were all eagerly waiting for this day, as we have a lot of fun while planning where to go and what to do on the occasion. Each year, besides the traditional dinner, we choose the sporting activity that best suited our colleagues. This year, the voting brought bowling in the arena.

## CeBIT 2012: Review

March 2012

Thank you everybody for visiting CODESPRING at CeBIT 2012!

CeBIT 2012 turned once again into a successful event for Codespring. The five days of tradeshow gave us valuable insight of

what 2012 ITC trends look like. The number of visitors stopping at our booth and asking for details about Romania and Transylvania's (or Siebenburgen) software development and outsourcing landscape was quite large. Our guests have learned about Codespring's set of services, about our delivery model and quality system. The quest for reliable outsourcing partners and the need to migrate to new environments and to integrate various systems were the hottest topics at our stand. Numerous business talks and business leads have marked our participation at CeBIT 2012.

## CeBIT 2012: Day 1

March 2012

CeBIT 2012 started yesterday, the 5th of March 2012, with a grandiose opening ceremony in the Hannover Congress Centrum. The event was presided by the German Chancellor, Dr. Angela Merkel. On behalf of the official Partner Country – Brazil – Dilma Rousseff, President, has addressed a welcoming speech. The keynote of the ceremony was given by Eric Schmidt, Executive Chairman of Google, conveying his message to a VIP audience of more than 2000 guests. Dr. Dieter Kampf, President of the German Federal Association for Information Technology, Telecommunications and New Media (BITKOM) and David McAllister, Premier of the State of Lower Saxony have also addressed their message to the CeBIT VIP audience.

## Computer Simulated Real World Behaviors

February 2012

One of the most spectacular capabilities that human kind has developed is that of planning ahead, of projecting things, phenomena and events in the future. Yet, how to choose among multiple options? How to capture and foresee dynamics? Often, the most reliable and elegant solution is mathematics.

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