Big Data Predictions: The New Science of Chance

If Your Data Center Isn’t Intelligent, It’s Dumb
Volunteer Leadership

By: Ann Gallaher, COO, Technology First

As we move into June, school ends, vacations start, and the season changes to summer weather. With this change are pleased to welcome to new Board of Directors to the already active list of community volunteers.

During the April meeting, new community leaders were elected to the Board of Directors for Technology First. As a newly elected Board member, Dave Hoskins is the Chief Information Officer at DPL Inc., the parent company of Dayton Power & Light in Dayton, OH. In this role, he is responsible for the overall operations and direction of the Information Technology group, including PMO activities and Information Security.

Dave brings 26 years of IT experience to his role, providing leadership in the areas of application development, infrastructure management, project management, IT strategy development, process improvement and information security.

He holds a bachelor’s degree in Computer Science from Northern Kentucky University and a Master of Information Systems degree from Wright State University.

Also newly elected, Doug Couch is the Vice President of Information Technology Services for Speedway. He began his 32 year career with Marathon as an Associate Programmer for Marathon Pipe Line in Findlay, Ohio. He was promoted to the position of Information Technology Supervisor for the Alaska Region in Anchorage, AK.

He was promoted to IT Manager at Marathon’s Technology Center in Littleton, Colorado. In conjunction with the Marathon Ashland Petroleum Joint Venture he returned to Findlay as Infrastructure Manager.

Mr. Couch managed the World-Wide IT Standardization program and served in a series of IT Management roles at Marathon headquarters in Findlay in the years following. Mr. Couch is a 1981 graduate of The Ohio State University with a bachelor’s degree in Computer Science and Production and Operations Management.

We are pleased to announce that Steve Hangen, Vice President and CIO for WinWholesale will stay on and is serving a second term as our Board Chair. Jeff Van Fleet, President of Lighthouse Technologies will serve as our Vice Chair and Chair of the CEO Council.

Jason Evans, Senior Client Services Mgr- Client Partner for Infosys has agreed to serve as our Treasurer and will lead the Finance Committee.

Please join me in welcoming our new Board members and leadership team!
CONTENTS

2 Leadership
   Volunteer Leadership

4 Technology
   Big Data Predictions: The New Science of Chance

6 Technology
   What are the Differences Between Relational and Graph Databases?

7 Technology
   If Your Data Center Isn’t Intelligent, It’s Dumb

8 Business
   Determine the Company Direction and Long Term Goals for BYOD

10 Business
   Five Common Mistakes with SharePoint Implementations

12 Technology
   Sinclair Workforce Development Offers Java and Android 4 Development Training

MEMBER FEATURES

14 Job Postings

15 Training Exchange
Big Data, at least in the world of IT number crunchers, has become something of a cause celebre. Big Data is an element of the Third Platform in IT (http://blog.ussignalcom.com/blog-1/bid/272918/What-is-the-Third-Platform-in-IT-and-How-Will-It-Affect-Business). IT types debate as to what constitutes a Big Data resource as well as what are the best analytical approaches. This article will not solve their dilemma but it will help you understand what Big Data is and its importance. First, we will define a few Big Data terms, then describe its predictive value with a well-known example, and finally show other outcomes of this phenomenon.

Big Data is a general term used to describe the voluminous amount of unstructured data a company creates. Big Data Analytics is the process of mining these enormous messy stockpiles of seemingly innocuous entries and queries to discover discernible and, ideally, repeatable patterns. The result of detecting unknown correlations and harnessing this information in novel ways is to produce useful insights or goods and services of significant value.

Today, the terms Big Data and Big Data Analytics are used synonymously.

To give you an idea of the immense size of information deemed Big Data, most are measured in terms of exabytes, which is one billion billion, or a quintillion bytes - enough storage to contain 50,000 years' of DVD-quality video.¹

There is controversy regarding the above definition of Big Data because some analysts say there are types of structured data that merit inclusion. Regardless of the exact content and size, a practical rule of thumb in its identification has emerged: Big Data is seemingly chaotic information that is deemed too costly in time and dollars to load into a relational database.²

So far, the most famous example of the power of Big Data is Google's innovative analysis of search queries and their relationship to potentially fatal outbreaks of H1N1 flu virus. H1N1 is a mutant hybrid that combines elements of the bird flu and swine flu viruses. And, its discovery and rapid spread in 2009 had health officials panicky that a pandemic sweeping the US was underway.³

Health officials saw that the same conditions existed as with the 1918 Spanish flu – millions of people were infected and there was no vaccine against this new strain readily available in all parts of the country. All jittery officials at the Centers for Disease Control and Prevention (CDC) could do was track the number of new flu cases (as reported by primary care physicians) and try to arrest its march across the country.⁴

The doctors dutifully reported new H1N1 flu patients but there was a latency problem. Most people may feel sick for days before going to the doctor. And, the CDC tabulated these flu numbers once a week causing an average of a two week lag between sickness onset and reporting – this is an eternity when fighting a disease that spreads easily with a cough, sneeze, or even a touch. Unable to pinpoint the spread of H1N1 in near real time, public health officials were groping in the dark for an effective way to head off a potential catastrophe.

Coincidentally, a few weeks before the H1N1 outbreak was discovered Google quietly published an innovative research paper in the scientific journal Nature.⁵ The paper reported an effort to identify areas in the United States infected by the winter flu virus by what people searched for on the Internet. Google's computer scientists designed sophisticated software that identified a combination of 45 search terms people had used to gather information about the winter flu (e.g. “medicine for cough and fever”). Using complex and creative mathematical models, the researchers compared these terms against inquiries collected between 2003 and 2008.

(continued on page 5)
And, here is where the term Big Data earns its brand. Google receives more than three billion search queries each day. For their analysis of winter flu outbreaks, the researchers utilized 450 million different mathematical models on the 5.5 quadrillion inquiries they received between 2003 and 2008 to ferret out flu related inputs. Their system looked for correlations between the frequency of certain search queries and the spread of flu over time and space. Using these results, they created a graph that showed where flu outbreak would occur between 2003 and 2008.

They then compared these results - which were predictions of flu outbreak - against actual cases reported to the CDC during the same time period. And, they hit pay dirt: their predictive figures correlated almost perfectly with official nationwide figures across the United States!

For the H1N1 outbreak, health officials were now armed with valuable information: where and when large outbreaks were likely to occur. Using this knowledge, they had the vaccine ready for the places that were most affected. Google’s predictive methodology circumvented the natural lags of compiling government statistics and, more than likely, saved lives.6

Another example of the life-saving implications of Big Data, involves our most populous city, New York. Not only are there more people in New York than any other city in the country, there are more manholes – 51,000 to be precise. These cast iron Frisbees weigh up to 300 pounds and, on occasion, they blast out of the street as high as three stories.

The city’s commercial electric grid, first lit by Thomas Edison in 1882, contains 21,000 miles of cable – almost enough to circle the globe. Because a manhole launching itself like a Titan missile is very dangerous; the Con Ed Company hired researchers at Columbia University to figure out a way to predict manhole explosions.

The team had data on cable repairs and installation dating back to the 1880s, 10 years of trouble ticket reports which equated to 61,000 typed documents. These data also had much irrelevant information such as parking information for Con Ed vehicles or that a customer did not speak English. The researchers developed an algorithm to create order among the confusion.

Their analysis of the trouble reports showed that the majority of the explosions were from manholes with thick, deteriorating cables. Larger amounts of insulation left more decay which was more vulnerable to the inevitable build-up of methane and other gasses present in an underground environment. From this information, the researchers developed the “hot spot theory.” That is, they predicted manholes with larger cables were more likely to explode.

Armed with this information, city works officials modified manholes with thick cables and virtually eliminated explosions.7

In a more benign example, Nate Silver, a former baseball statistician, used Big Data to predict the past Presidential election with stunning accuracy. Mr. Silver consistently rejected the conventional wisdom that the race was tied. He developed a statistical model to aggregate state and district level polling data to predict what states each candidate would win. On election night, he was vindicated as his predictions were 100% correct.8

Think of everything you put into the ether of the Internet. Each time you perform a search, create a document, or even a keystroke you could be putting out a piece of a puzzle that is waiting to be solved.

1 Tech Target, April 2005
2 Ibid
3 World Health Organization, 2009
4 Center for Disease Control and Prevention (CDC), 2010
5 Nature (457), 2009
6 Ibid
7 Wired, 2010
8 SingularityHUB, 2012
What are the Differences Between Relational and Graph Databases?

By: Rob Merenyi, CSO, Segue Technologies, Inc.

Say “database” to most people, and the concept of an organized collection of data, neatly stored in rows and columns of tables comes to mind. This concept of a fixed schema, where each row is a collection of attributes, is the basis for relational databases and the querying languages, such as SQL (Structured Query Language) used to interact with the stored data since the earlier 1970’s.

In the last 15 years however, there are several industries where the amount of data being generated greatly exceeds the ability for relational databases to handle it. Companies like Google and Amazon have long been generating massive amounts of data using countless numbers of servers. With the resulting data spread across multiple machines, traditional relational SQL JOIN[1] operations are just not possible.

Graph Databases

Enter graph databases, which are defined as any storage system that provides index-free adjacency. What this means is that every element in the database contains a direct link to its adjacent element. No index lookups are required; every element (or node) knows what node, or nodes, it is connected with, this connection is called an edge. This allows graph database systems to utilize graph theory to very rapidly examine the connections and interconnectedness of nodes - and how Netflix can recommend videos for you.

The power of the edge allows a graph database to find results in associative data sets - data where information is the aggregation of links between nodes - faster than relational databases. Graph databases can scale more naturally to large data sets and to datasets with changing or on-the-fly schemas. On the other hand, relational databases are still better at performing the same operation on large numbers of identical data. When you want your bank balance, you don’t want a rapid list of all your transactions - just your bottom line.

The use of graph databases is rapidly spreading to many applications through the use of mixed-database approaches, where a graph search is used to identify the extent of the data, and a subsequent relational search is used to provide the detailed analytics. While this approach presently involves developing (and supporting) two database structures, it yields rapid response and targeted data analysis. Some solutions present the graph results to users while the analytics are being pulled and crunched; other systems serve up old results while the new results are being calculated. How analytics and associations coexist is one of the considerations that must be made when architecting your solution.

So is a graph database in your future? If a third or more of your relational tables describe links between data elements, your database is heavily associative, and can be a graph database candidate. The final decision requires a complete analysis of how the data is being used, volume and growth patterns, and not just a review of table structures. If your data is used for statistical analysis, data mining and exploration, or operational research, the relational database approach is still at least part of the architectural solution.

Dr. Rob Merenyi is Chief Strategy Officer for Segue Technologies, HQ in Arlington, Virginia with offices in Dayton Ohio. Segue takes a business-focused approach to IT projects, using technology as a means to solving a problems rather than pushing a predefined tool. Segue services include - Software Engineering, Information Management Systems, Integration, Quality Assurance, Government Services and Health Information Management. Find out more at www.seguetech.com
If Your Data Center Isn’t Intelligent, It’s Dumb

By: Jon Lind, IO

IO Technology lowers the total cost of data center ownership and enables data center capacity to be dynamically deployed based on the needs of IT equipment and applications in the data center.

The “always on” requirements of today’s applications-driven IT world have elevated the importance of the data center in the IT value chain. Through the power of software, the data center has become an enabling layer of the IT stack. The performance of this entire stack is now dependent upon data center performance.

The traditional data center paradigm (Data Center 1.0) is broken. It is mathematically unsustainable from both the operational and the environmental perspectives. It costs too much, takes too long to deliver, and is overbuilt and under-utilized. It squanders power and dollars. Add to the equation the rise of mobility, cloud and Big Data, and it’s clear that today’s businesses need a new solution that offers unprecedented agility.

The role of the data center from this point forward must be to ensure that operators have cost-effective, comprehensive VISIBILITY and CONTROL of the data center, so that human and machine users stay connected to the applications they use to work and play. The data center must empower the entire IT stack to meet the ubiquitous demands of a converged and consumerized IT landscape.

Data Center 2.0: A New Paradigm

IO created Intelligent Control®, the next-generation data center infrastructure technology, to solve these problems and prevent an impending global disaster.

An integrated hardware and software data center technology platform, IO Intelligent Control offers enterprises, governments and service providers an innovative way to deploy, provision and optimize data center capacity anywhere in the world.

IO purpose-built hardware, IO.Anywhere®, is a modular system of standardized, UL-Listed data center infrastructure that allows phased data center capital spending, accelerated deployment of data center capacity and reduced total cost of ownership. IO. Anywhere modules can be deployed by IO customers within or outside their existing data centers, at a remote location or office, or at a third-party service provider’s location.

(continued on page 11)
Determine the Company Direction and Long Term Goals for BYOD

I have read so many articles about BYOD that my head spins. From the security concerns to the five steps (or was it seven? ... no, it was twelve!) to implement a BYOD strategy, what I learned is there is no right way. Every solution is unique, from the vendor that supplies it, to the company that implements it. With this heavy fog, how can anyone see a clear path to implement a successful BYOD strategy? There truly is not a predetermined step-by-step plan that can be followed, but there is a process that can fit everyone. A process can be adapted to any company for any solution. Let’s look at a process that can lead to a successful BYOD implementation.

Determine the Company Direction and Long Term Goals for BYOD

Bring Your Own Device (BYOD) can transform the way companies do business, but to really take advantage of everything BYOD has to offer you first must define your vision. Having a strong vision of how BYOD will be used within your company will allow you to define a strategy to get there.

Things to consider when building your BYOD vision should include the type of devices you want to allow, and where those devices will be allowed to connect from. You may want to limit access based on location, trustworthiness of the device, the individual connecting, or all the above. Also consider what business applications should be BYOD-enabled and in what order. The support model that you will adopt is also important to think through. Remember that you’re defining a vision, not detailed requirements, so keep it high level.

Define Policies:

Once you have a vision, it is time to define your policies. Policies are critical to communicating what is acceptable and what is not. The first policy you must define is whether or not the company data will be permitted on the device.

This simple statement will have dramatic implication on how you implement a BYOD solution. It’s also important to decide exactly what you mean when you say, “bring your own device” - are you really saying, “Bring your own iPhone or iPad, but not your Android phone or tablet”? Make it clear to employees who are interested in BYOD which devices you will support. Employees also must understand the boundaries when questions or problems creep up with personal devices. To set these boundaries, you’ll have to answer the following questions about the level of support you will provide.

• What level of support will be available for initial connections to your network from personally-owned devices?

• What kind of support will IT representatives provide for broken devices (i.e. data recovery)?

• Will you limit helpdesk to support to email and calendaring, or will you support other personal information management-type applications?

• What if a problem with a specific personal application is preventing access to the applications you have previously defined as supported?
• Is your support basically a “wipe and reconfigure” operation?

• Will you provide loaner devices for employees while their phone or tablet is being serviced?

• What is the exit strategy for terminating employees to ensure proper recovery and wiping of company data?

These policies must make it clear who owns what applications and data (if you allow data on the device) to avoid any issues when a user separates. The Acceptable Use Policy will also have to be updated to include BYOD issues. For example, even though many owners have their own 3G/4G Internet access, you still would not want an employee to sit at their desk during lunch and surf inappropriate sites.

BYOD also brings new legal issues that companies have to address in their policies, such as the right to audit devices, employee privacy, incident response and forensics, liability and damage issues, and many more based on your type of business. For this reason I would highly recommend consulting with your legal team to ensure all the bases are covered.

I would strongly consider establishing a stringent security policy for all devices. If you decide to allow data on the device these policies are critical.

Assessment:
A good assessment is worth its weight in gold. An assessment for BYOD should be based on the current state of the company’s infrastructure, processes and procedures, and corporate policies. The experience and knowledge of the company’s personnel to assist with the design, implementation, and support of a BYOD deployment should also be reviewed. The assessment should identify any infrastructure upgrade or enhancement requirements, risks and mitigating controls that should be implemented, additional processes and procedures, and new skills sets required to ensure a successful role out and ongoing support of a BYOD solution. The assessment should also include any additional policies that are needed to protect the company.

Build a Roadmap:
Now that we have a good vision, defined the companies policies, and identified all the gaps with the assessment, it is time to start building a road map. The road map should be designed in phases to make the project more manageable and to increase the opportunity for success. Each phase should close a gap identified with the assessment and explain what capabilities it will add to enable the company’s BYOD vision. A critical component of the road map is security – it should be implemented with the initial phase rather than bolted on at a later date to meet requirements for securing the data. It should include any additional technologies such as Mobile Device Management or automated enrollment solutions. It should also include any new processes and procedures that will be required to enable your company’s BYOD vision. The roadmap should also point out any additional resources (people or contractors) required to implement and maintain the solution. The roadmap must have cost estimates for each phase of the implementation.

Execute and Evaluate:
Once the roadmap has been defined and phases mapped out, the plan must be executed. At the end of each phase you should review the vision and ensure it still meets the company objectives. After two decades in IT I have seen so many implementations start moving down a path only to have the company’s vision change, making the current strategy obsolete or require changes. To ensure success, you must have checkpoints in your process to make these course corrections.

This process seems very simple but takes discipline and experience to execute effectively. If done correctly it dramatically increases the likelihood of a successful BYOD implementation.
Five Common Mistakes with SharePoint Implementations

By: Duane Odum, Solutions Group, Interactive Business Systems,

Our SharePoint expertise often lands us in situations where we are asked to "fix" SharePoint implementations. Over time, we've seen patterns to the causes of problematic implementations. Here are five of the most common issues we've encountered:

1. The best laid plans can go to waste because of poor planning, and SharePoint implementations are no exception. A majority of small to mid-level businesses begin using SharePoint 2007 (WSS 3.0) or SharePoint Foundation 2010 (free versions) for their intranet. Because there is generally no knowledge base within these organizations for the implementation and maintenance of SharePoint, best practices and governance policies are not incorporated. With little perceived value of the free version, businesses give users free reign over content creation. When the business decides to use SharePoint to its full potential, the IT department is typically assigned ownership, and by this time, the intranet has become an utter mess. IT is left to clean up with no idea of the original vision for the project.

2. In some cases, mistakes are made by the IT department themselves. We have gone into numerous projects where a migration has taken place from a SharePoint 2007 version to a SharePoint 2010 version and there are unresolved issues with the migration left uncorrected. This can result in an inability to apply Service Packs and Cumulative Updates, which is one reason we see so many instances of SharePoint 2010 running on the RTM version. In many cases the migration task was contracted out or performed by someone within the organization's IT department and left unfinished because they did not have the knowledge required to resolve the issue.

3. No one owns the SharePoint implementation. When we walk into a SharePoint environment, one of the first questions we ask are: Who actually owns the implementation? Who is responsible for the servers? Who is responsible for the content? Who is responsible for the security? On far too many occasions the answer is "no one" or someone "occasionally" checks in on things. In order for anything to succeed in the business world, someone has to take ownership. Ideally, there are multiple people who feel that they are owners of the SharePoint implementation both from the business user side and IT staff.

4. SharePoint group permissions grow to a point that no one knows who has permission to what and what level of permissions they have. Although SharePoint connects to Active Directory seamlessly, there are still many organizations using SharePoint groups to control all level of permissions within SharePoint. There are definitely situations where this is a valid security strategy but caution is advised when you are creating 10 different groups repeatedly within SharePoint sites and not using Active Directory to manage those permissions. It is most likely that using Active Directory for Read level permissions is your best bet.

5. The last common issue that we see in SharePoint implementations is that access to SharePoint Designer is granted too loosely. It is always great when business users want to be more involved in the design/development efforts regarding SharePoint, but some training should be required before allowing them access to SharePoint Designer. We've seen where 30 people are considered Site Owners and have access to SharePoint Designer. One false move on a Master Page and everyone is wondering why the intranet is down, and the user has no idea they caused the issue.

Overall, a successful SharePoint implementation comes down to proper planning, knowledgeable implementers, careful execution, appropriate training and maintenance.

Duane A. Odum, Solutions Group, Interactive Business Systems, Inc. (513)315-3800

IBS, Interactive Business Systems, Inc. is a technology solutions and staffing company known for achieving business objectives through technology excellence. IBS attains excellence in IT solutions and staffing delivery using our proven software development methodology and rigorous requirements gathering. We are a Microsoft Gold Partner in SharePoint. To learn more about how IBS supports the challenges, timeframes and budgets of any organization, visit http://www.ibs.com

For more information about IBS, SharePoint and other solutions, please contact Karen Adkins at kadkins@ibs.com or call 734-542-9137.
If Your Data Center Isn’t Intelligent, It’s Dumb, cont.

IO.0S® the first true data center operating system, was designed to accommodate IO and open-sourced applications that manage both IO, Anywhere and traditional data center infrastructure. IO.0S allows unified management of infrastructure, IT equipment and applications, while providing real-time data center visibility, control, and automation.

IO also has a flexible delivery model that offers our platform as a product or as a service. When delivered as a product, the IO platform offers customers IO.Anywhere modules, IO.0S data center operating system software, and services including warranty, training, support, installation and integration. When delivered as service (“DCaaS”), IO deploys, operates and monitors the IO platform for customers in a facility that is operated by IO or a “Powered by IO” partner.

The Dayton area is seen as an emerging tech hub for the Midwest. According to a December 2012 study by the Bay Area Council Economic Institute, Dayton experienced the nation’s third-largest increase in high-technology employment growth. IO Ohio exists to help that growing technology sector succeed, by porting it into Data Center 2.0.

Data Center 2.0 means the data center is IT: it’s a cohesive set of engineers solving the same problem over and over, doing it better each time; it’s relentless innovation and software optimization; and it’s improved product sustainability and performance. Data Center 2.0 is responsive and efficient, and it consumes less capital. Data Center 2.0 is an engine that drives business, rather than an anchor holding it back.

Data Center 2.0 is a fundamental shift in the way organizations think about their data center strategies; it demands that a strategic lens be placed on IT-enabling and IT-delivery systems. Data Center 2.0 is the computer, not the building that houses it.

Evolve your data center strategy today, or risk devastating consequences for your business tomorrow.
Sinclair Workforce Development Offers Java and Android 4 Development Training

Based on the recent success of the first cohort of its Java Programming and Mobile Application Development course, the Sinclair Community College Workforce Development Division has announced that it will be continuing to support Java Programming training, a highly desired skill among IT employers in the Dayton, Ohio region, by offering a second round starting at the end of June 2013.

The first iteration of the course was host to students who were instructed in the skills necessary to develop and publish mobile applications for Android in the 16-week program. Each student received a certificate of completion upon fulfilling the course requirements. The next session of the course will be similar; however, Sinclair has slightly modified the course structure to accommodate the broader skill levels of interested students.

The current offering will provide the opportunity to select one or both courses of the Java Programming and Android 4 Mobile Application Development Package, based on prior programming knowledge and skill level.

**Combination Course - Java Programming and Android 4 Mobile Application Development**

The packaged, two-section program will teach students the foundational Java skills necessary to develop and publish mobile applications for Android devices. The total course offering is ideal for people with prior programming or web development experience but who do not have Java experience. It provides grounding in the process and theory guiding Java development. In addition, The Android 4 session is an introductory course to the newest release of Android OS. If you are interested in becoming a mobile app developer, this course will help you learn what is needed to program for the latest Android smartphones and tablets. The two classes in the series will be held on Thursday nights from 5:30 - 9:30 p.m. from June, 27 through October 17, 2013. Students are encouraged to take both classes in sequence. There is a pricing discount for students who select the “package” by registering for both classes at the same time.

**Java Programming (As a Stand-Alone Course)**

If you prefer to take only one of the two parts that make up this series based upon your current knowledge and experience level, Sinclair Workforce Development allows you to do so. The first course of the series, **Java Programming and Android Application Development**, will focus on Java Programming skills necessary to program Apps for Android devices and is designed for programmers who need instruction in Java but already have some programming and computer science skills. This Java course will cover the process and theory guiding Java development that includes topics such as Best Practices, Object Oriented Development, Advanced GUI topics, Graphics and Sound. The classes will be held on Thursday nights from 5:30 - 9:30 p.m. from June, 27 through August, 22 2013.

**Android 4 Mobile Application Development**

The second part of the series, titled **Android 4 Application Development**, will center on the programming and design of Android Apps for programmers already familiar with Java Programming. This class concentrates on the Android 4 OS which is a single solution for both smartphones and tablets. Students therefore learn to program for both devices. This class will help you work with SMS and messaging APIs, the Android SDK and location based services. The class will explain how to customize activities and intents, create rich user interfaces and manage data. The classes will be held on Thursday nights from 5:30 - 9:30 p.m. from August, 29 through October 17, 2013.

(continued on page 13)
MEMBER MENTION

The two-course **Java Programming and Android 4 Mobile Application Development** series will provide area employers a larger pool of qualified Java programmers, while providing students and job seekers an opportunity to expand their skill base to qualify for positions in this high-demand field.

In the November 20, 2012 edition of the Dayton Business Journal, in an article titled Hottest Tech Jobs Across Dayton, writer Joe Cogliano reported that, “Mobile applications developers will see the highest [salary] increases (an average of 9 percent), as companies look for people to help them build business using mobile media. In the Dayton region, the guide shows local salaries of mobile application developers are expected to range from $80,693 to $116,145.”

Technology First has been encouraging and cooperating with Sinclair Community College to offer this Java certificate program, since Java programming is in such high demand here, according to Technology First’s latest survey of regional CIOs as well as presidents of regional IT service providers.

All courses will be offered at the Sinclair Workforce Development facility in the Miami Valley Research Park, 1900 Founders Drive, Suite 100, Kettering, OH 45420. The fees for the various courses are as follows:

**Option #1: Java Programming and Android 4 Mobile Application Development Package** which includes both classes priced at $2,655 (10% discount for this package of both courses).

**Option #2: Java Programming for Android Application Development** class priced at $1,465.

**Option #3: Android 4 Application Development** class priced at $1,465.

To register, visit the course website at: www.SinclairAppDevClass.com or scan the QR code below from a smartphone. You can also call the Workforce Development Program Office at (937) 252-9787 or email workforcedevelopment@sinclair.edu.

Dr. Kenneth A. Moore Special Advisor to the President Sinclair Community College

Bob Turner President CommSys, Inc.

Leigh Sandy Vice President DataYard

Paul Moorman – Chair IT Strategist NewPage Corporation

To stay up to date on this program, please follow us on Twitter @SinclairAppDev

TECHNOLOGY FIRST BOARD OF DIRECTORS

Technology First would like to thank and recognize its Board of Directors. They provide input into the strategic direction of the organization and actively lead working committees that drive our programs and services.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil Bergstedt</td>
<td>Senior Solution Architect GE Aviation</td>
</tr>
<tr>
<td>Joanne Cummins</td>
<td>CIO Standard Register</td>
</tr>
<tr>
<td>Jeff Van Fleet</td>
<td>CEO Lighthouse Technologies</td>
</tr>
<tr>
<td>Mikki Clancy</td>
<td>Chief Operating Officer Miami Valley Hospital</td>
</tr>
<tr>
<td>Gary Codeluppi</td>
<td>Vice President, Marketing and Business Development The Ross Group</td>
</tr>
<tr>
<td>Steve Hangen</td>
<td>Vice President and CIO WinWholesale Inc.</td>
</tr>
<tr>
<td>Tim Hull</td>
<td>President TDH Marketing, Inc./ Bitstorm Web</td>
</tr>
<tr>
<td>Ann Gallagher</td>
<td>Chief Operating Officer Technology First</td>
</tr>
<tr>
<td>Barbara Hayde</td>
<td>President The Entrepreneurs Center</td>
</tr>
<tr>
<td>Dr. Kenneth A. Moore</td>
<td>Special Advisor to the President Sinclair Community College</td>
</tr>
<tr>
<td>Bob Turner</td>
<td>President CommSys, Inc.</td>
</tr>
<tr>
<td>Leigh Sandy</td>
<td>Vice President DataYard</td>
</tr>
<tr>
<td>Paul Moorman</td>
<td>Chair IT Strategist NewPage Corporation</td>
</tr>
<tr>
<td>Doug Couch</td>
<td>Vice President Information Technology Services Speedway</td>
</tr>
<tr>
<td>David Rotman</td>
<td>CIO Cedarville University</td>
</tr>
<tr>
<td>David Hoskins</td>
<td>Chief Information Officer Dayton Power &amp; Light</td>
</tr>
<tr>
<td>Dr. Thomas Skill</td>
<td>Associate Provost &amp; CIO University of Dayton</td>
</tr>
</tbody>
</table>
**NEW JOB POSTINGS**

<table>
<thead>
<tr>
<th>Position</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Intercompany Functional Consultant</td>
<td>Lighthouse Technologies, Inc.</td>
</tr>
<tr>
<td>Software Test Lead/Manager</td>
<td>Lighthouse Technologies, Inc.</td>
</tr>
<tr>
<td>SQL Server Developers</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>SharePoint Developers</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>Quality Assurance Analyst</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>Project Manager</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>Java Developers</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>Business Intelligence Consultants</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>Business Analyst</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>.NET Developers</td>
<td>Sogeti USA LLC</td>
</tr>
<tr>
<td>Database Administrator</td>
<td>Towne Properties</td>
</tr>
<tr>
<td>Java Programmer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>Reed Elsevier Technology Services</td>
</tr>
<tr>
<td>SAP System Administrator</td>
<td>Crown Equipment Corporation</td>
</tr>
<tr>
<td>Lead IT Support Engineer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>IT Network Administrator</td>
<td>Hartzell Industries, Inc.</td>
</tr>
<tr>
<td>Linux Systems Administrator</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>Technical Lead</td>
<td>Edict Systems, Inc.</td>
</tr>
<tr>
<td>Web User Interface Designer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>Senior UNIX Systems Engineer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>Senior Linux Systems Engineer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>IT Operations Manager</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>Software Integration and Support Engineer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>C#/.NET Application Developer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>IT Program Manager</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>Content Delivery Engineer</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>Oracle E-Business Development Consultant</td>
<td>Lighthouse Technologies, Inc.</td>
</tr>
<tr>
<td>Oracle E-Business Functional Consultant</td>
<td>Lighthouse Technologies, Inc.</td>
</tr>
<tr>
<td>Network Project Manager</td>
<td>Russ Hadick &amp; Associates, Inc</td>
</tr>
<tr>
<td>ETL ARCHITECT</td>
<td>Premier Health Partners</td>
</tr>
</tbody>
</table>

For more information about these jobs and other jobs, please visit http://www.technologyfirst.org/component/employment_exchange
NEW FEATURED CLASSES

Configuring Windows 8 (Special Pricing) – M-F, 6/24-6/28, 8:30am-5:00pm, $1,350/$1,215 for Technology First Members – Need 5 students — This instructor-led 5-day course provides students a hands-on experience with Windows 8. Students learn how to manage storage by creating simple, spanned, and striped volumes, and how to optimize file-system performance. They learn how to manage available disk space by using quotas. In addition, students learn to work with Windows tools and services to determine the source of performance and reliability issues, and to troubleshoot these issues.

Java Programming and Android 4 Mobile Application Development Package – Th, 6/27-8/22, 5:30pm-9:30pm, $2,655/$2,390 for Technology First Members – Need 5 students — This Java course will teach you the foundational Java skills necessary to develop and publish mobile applications for Android devices. The 8-week course is part of a Certificate Program of hands-on computer lab training. The course is for people with prior programming or web development experience, but who do not have Java. It will not cover the basics and best practices of software development.

Java Programming for Android Application Development – Th, 6/27-8/22, 5:30pm-9:30pm, $1,465/$1,319 for Technology First Members – Need 5 students — This Java course will teach you the foundational Java skills necessary to develop and publish mobile applications for Android devices. The 8-week course is part of a Certificate Program of hands-on computer lab training. The course is for people with prior programming or web development experience, but who do not have Java. It will not cover the basics and best practices of software development.

Android 4 Application Development – Th, 8/29-10/17, 5:30pm-9:30pm, $1,465/$1,319 for Technology First Members, — Need 5 students — This is an introductory course to the newest release of Android OS. Would-be mobile app developers will learn what they need to know to program for the latest Android smartphones and tablets. The class concentrates on the Android OS which is a single solution for both smartphones and tablets, so what you learn will help enable students be successful developing for both devices. From using activities and intents and creating rich user interfaces to working with SMS, messaging APIs, and the Android SDK, you will gain what you need to know in this class.

HTML5 Application Development Fundamentals – M-W, 6/3-6/5, 8:30am-5:00pm, $2,250/$2,025 for Technology First members — Need 2 students — This instructor-led 3-day course helps you prepare for Microsoft Technology Associate Exam 98-375. It builds an understanding of these topics: Manage the Application Life Cycle, Build the User Interface by Using HTML5, Format the User Interface by Using CSS, Code by Using JavaScript. This course leverages the same content as found in the Microsoft Official Academic Course (MOAC) for this exam. This course is one of 5 in the MTA development track — for those intending to build a career as a software developer, this track helps prepare you for hands-on product training and future MCSD certification. Start with MTA Software Development Fundamentals and then select the additional topics in this track to help you meet your career development goals.

CompTIA Security+ Module 6 for CEUs – Th, 6/6, 8:00am-12:00pm, $199/$179 for Technology First members — Need 4 students — This half-day CompTIA Security+ Module is for those professionals who want to gain continuing education units (CEU) in order to renew their certification. You may earn up to 40 of the 50 CEUs required for the CompTIA Security+ certification renewal using CompTIA Approved Quality Content (CAQC). We will be using the next level certification courseware which is the CompTIA Advanced Security Practitioner (CASP) courseware.

VMware, vSphere: Optimize and Scale (Instructor Led Virtual Class) – M-F, 6/24-6/28, 8:30am-5:00pm, $3,445/$3,100 for Technology First members - Need 4 students — This 5-day instructor led course teaches advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. The course is based on VMware vSphere® ESXi™ 5.0 and VMware® vCenter Server™ 5.1. This course prepares the student for the VMware Certified Advanced Professional – Datacenter Administration [V5] certification (VCAP5-DCA). Completion of this course also satisfies the prerequisite for taking the VMware Certified Professional 5 exam.

JUNE 2013

CompTIA Security+ Module 7 for CEUs – Th, 7/11, 8:00am-12:00pm, $199/$179 for Technology First members – Need 4 students — This half-day CompTIA Security+ Module is for those professionals who want to gain continuing education units (CEU) in order to renew their certification. The CompTIA Advanced Security Practitioner (CASP) course introduces you to advanced security implementations and strategies use for full enterprise implementations. It is also the main course you will take to prepare you for the CAS-001 exam. You may earn up to 40 of the 50 CEUs required for the CompTIA Security+ certification renewal using CompTIA Approved Quality Content (CAQC). We will be using the next level certification courseware above Security+ which is the CompTIA Advanced Security Practitioner (CASP) courseware.

JULY 2013

Not seeing a class you’re looking for? Contact us today! Phone: 937-252-9787 | Web: www.sinclair.edu/workforce

Discover how Sinclair’s Workforce Development program can help your organization meet its IT training needs.

Contact Lillian Sullivan at 937.252.9787 or lillian.sullivan@sinclair.edu. Not seeing a class you are looking for? Contact us today!

Sinclair Workforce Development at 937-252-9787 or email workforcedevelopment@sinclair.edu

Did You Know?

Workforce Development’s Testing Center offers an extensive portfolio of selection, descriptive and predictive assessment and certification exams from respected online vendors including ACT, CLEP, Kryterion, PAN, Pearson Vue, and Prometric. Numerous companies, individuals and organizations frequently use the Testing Center for pre-employment screening, professional development, planning, and industry certification and credential exams.

Workforce Development also has a state-of-the-art facility that would be great for your next training event! The facility’s five computer training labs are fully-equipped with the latest technology, including the region’s only hands-on Cisco and Oracle Network Labs. Each room includes 24-26 networked student PC workstations with a flexible infrastructure to meet client needs. Or check out our flexible meeting rooms, perfect for your next off-site meeting. We invite you to experience the superior client service, state-of-the-art facility, and exceptional catering that is Workforce Development at Miami Valley Research Park! Conveniently located just minutes from I-675 and SR-35 in Kettering, Ohio, clients may reserve the facility for their own programs or partner with Workforce Development to provide targeted training solutions for their organization’s unique needs.

The Training Exchange
Lillian Sullivan
937.512.5758 • lillian.sullivan@sinclair.edu

www.technologyfirst.org
Mobile Responsive Websites For Companies on the Grow

- Responsive Web HTML5 and CSS3 Development
- Custom Apps Development
- Ecommerce Solutions
- Search Marketing
- Social Media Marketing
- Content Management Solutions
- 3D Modeling and Animation
- Video Production

BITSTORM WEB

www.bitstormweb.com 937-438-3434 info@bitstormweb.com