**ICT/DIGITAL MEDIA/BIW INDUSTRY ADVISORY BOARD MEETING MINUTES**

**San Diego/Imperial Valley Community Colleges**

Friday, December 2, 2016

San Diego City College, Corporate Education Center, MS Building

The Information Communication Technology/Digital Media/Business Information Worker industry advisory committee meeting was opened by Deputy Sector Navigator Leroy Brady at 4:13 p.m. The following industry and faculty members were present:

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| Evan Donaldson (TALENTRY)  | Tom Luibel (SOUTHWESTERN COLLEGE)  |
| Kathy Hayashi, (QUALCOMM)  | Kathleen Lopez (SOUTHWESTERN COLLEGE)  |
| Wilson Figueroa (VIASAT)  | Leroy Brady (CITY COLLEGE)  |
| Emmanuel Valdez (Independent Consultant)  | Duane Wesley (MESA COLLEGE)  |
| Jermaine Davis, (RAZER ZONE)  | Theresa Savarese (CITY COLLEGE)  |
| LeRoy McGee, (CITY OF SAN DIEGO)  | Vicki Maheu (SD CONTINUING ED)  |
| Richard Yumul (SAGE TREE SOLUTIONS)  | Tom Luibel (SOUTHWESTERN COLLEGE)  |
| John Bertino, (THE AGENCY GUY)  | Rick Cassoni (MIRACOSTA COLLEGE)  |
| Rick Belliotti (SAN DIEGO AIRPORT)  | Larry Forman (CITY COLLEGE)  |
| Marie LaPointe (FLASHPOINT MARKETING)  | Lynn Keane (GROSSMONT COLLEGE)  |
| Heather Whitley-Quinn (MANPOWER)  | Leslie Cloud (MESA COLLEGE)  |
| Janea Roberts (KAISER PERMANENTE)  | George S. Jaseianakis (MESA COLLEGE)  |
| Stephanie Johnston-Austin (SDCOE)  | Leslie Branchard (GROSSMONT)  |
| Michelle Gray (GRAY SOURCING)  | Curtis Sharon (CUYAMACA COLLEGE)  |
| Youwen Ouyang (USC, SAN MARCOS)  | Jodi Reed (CUYAMACA COLLEGE)  |
|  Paul Margolin (Booth Allen & Hamilton) | Martin Parks (MIRACOSTA COLLEGE)  |
|   | Marilyn Harvey (CITY COLLEGE)  |
|   | Rose LaMuraglia (CITY COLLEGE)  |
|   | John Hammond (CITY COLLEGE)  |
|   | Javier Ayala (GROSSMONT)  |
|   | Tom Smerk (SD CONTINUING ED)  |
|   | Azam Awan (CITY COLLEGE)  |
|   | Terrell McClain (CITY COLLEGE)  |
|   | Reza Taba (Ray), Student, City College  |
|   | Ryan Sloan, Student, City College  |
|   | Emmanuel Soto, Student, City College  |
|   | Johnny Rivera, Student, City College  |
|   | Ali Ghasemi, Student, City College  |

**General Session:**

* Objective: to advise curriculum, in order to create new programs and certifications in order to prepare students for the growing job market.

**Doing What Matters Initiative:**

* Goals:
	1. to assess supply and demand for employers
	2. to assess what students need to begin a career in the industry
	3. to create relevant career pathways
	4. to assess whether or not students should value certificates over their AA Degree e. to promote student success

f. to develop a regional approach to prepare students for careers in their chosen fields **Reviewing what campuses are currently offering, in terms of IT & BIW Programs:**

* Grossmont: BIW courses, programming, C++, Java, and drone technology. Additionally, they have begun expanding adult education courses, as well as non-credit to credit pathways.

* Mesa: Game programming courses, exploring mobile gaming including Android & IOS and mic-controlled programming. Health Information Program (HIM), which they hope to offer a four-year degree in. They have expressed a need for increasing embedding and cyber security courses.

* MiraCosta: Developing CSU partnerships. They are developing curriculum for a cyber security certificate, and considering expanding into a two-year degree.

* Cuyamaca: Recently installed Netlabs.

* Southwestern: BIW courses and high school integration. They seek to renovate their curriculum regarding mobile devices, web design and 3-D gaming.

* City: Focusing on expanding cyber security and IT certifications into two-year degrees, and maybe even four-year degrees. Currently working on game programming, exploring Python and database programming. City is also working with the County Office of Education: Currently advising students in high school to take BIW courses.

* Continuing Education: Developed programs which lead to vocational certificates, in order to assist students with finding employment without a degree. Hope to develop courses which will allow their units to be transferrable. They hope to expand their curriculum to include courses on digital media, CISCO and BIW.

**Break Out Session: IT & Digital Media**

* Question: What future jobs do you see in the San Diego Gaming industry; Animator, Artist, Developer, etc.?
	+ The job market is currently very healthy. Sony for instance, is seeking content developers as well as visual services developers, who can assist in creating movies for games. Additionally, Rockstar Games and Rocket League are currently hiring in large quantities. As this business is “hit-driven” companies will hire to support growing games, but may release entire teams of people when the project loses momentum.

* Follow up question regarding the job market for media designers
	+ There is a ripe market at the moment. Most local businesses are on their third or fourth web-site, and have had time to assess what does and does not work. Their ideal candidate would be a Full-Stack Developer; someone who can develop on the front and back end, and understands CSS, HTML, PHP, JAVA and back-end coding. Additionally, competitive analytics and machine learning knowledge is required for careers in these growing fields. Since games are becoming increasingly ad-driven, there is a need to fill these positions ASAP.

* Question: How important are certifications? Should they be valued more than a two-year degree?
	+ Some companies and positions will require them, and some will not. However they are absolutely necessary for a career in a government agency. Some industry representatives maintain that in order to have your resume looked at, you must be CNP Certified. A two-year degree does not guarantee employment on its own, but could lead to a level 1 or 2 technician position.

* + Security Analysts are currently in high demand. The ideal candidate for this position, is someone who can understand modern security tools and software, and use them

to hunt down security threats and issues within systems. Currently, companies are investing in their staff members and training them to have a hunter mentality. Unfortunately, most employees use their new skills to find higher positions.

* Question: If City were to create a new 2-year degree in the Career Tech Division, what would be our niche?
	+ Cloud services and Cybersecurity. AWS Certification as well as a two-year degree is enough to get a good entry-level position.
* The question was posed to the advisors if they approved/endorse the campus’ efforts to create two tracks in cybersecurity offerings to include:
	+ One certificate of Achievement and the corresponding Associate Degrees for the CompTIA cybersecurity track including Security+, CASP and other networking classes where the core courses can total up to 36 units.
	+ One certificate of Achievement and the corresponding Associate Degrees for the EC-Council cybersecurity track including the computer forensics, Certified Computer User, Certified Ethical hacker and other networking classes where the core courses can total up to 36 units.
	+ The board approved/endorsed these efforts with all advisors in agreement

* Question: What are your thoughts on Virtual Reality?
	+ It is an emerging trend; there is a presence in San Diego but it is still very new. Video game companies are not sure how to integrate it into their existing systems. However they are interested because of the “wow-factor”.

* Question: How can we as IT Instructors, encourage students to communicate effectively?
	+ Some industry representatives employ “tiny tech talks” in the work place. These allow the engineers 15 minutes to convince their team that their project is viable and worth pursuing. If the team is not sold on the idea after 15 minutes, the engineer must move on to a new project. Additionally, it may be beneficial to require students to complete a higher level English course before they graduate.

* The Industry Representatives highlighted the following as areas of focus we should develop further, in order to better serve our student population:
1. Google Certifications
2. Boundary Conditioning; exposure to more abstract genres
3. Ability to develop strategy based content; requiring end users to communicate with one another
4. Software: C++, Unity and Amazon’s Lumberyard
5. Front and back end development integration
6. The value of passing security background checks & having a good credit score, specifically for careers in NCIS
7. Internships for the City of San Diego
8. Effective Writing (be clear, concise and critical)

**Break Out Session: Business Information Worker**

The Business Information Worker industry members and faculty met in a nearby room to discuss the following:

**Question**: In response to the questions regarding jobs hiring for today being around for the next five years:

Janea from Kaiser: Very important to cater to the security of patient information (there are different types of customer service (theirs happens to be how they deal with and offer information to patients); internal customer service; these types of jobs/skills will still be needed.

Heather from Manpower: Core competencies for human relations: customer service skills must be merged with leadership training; need to work as a cross-functional team, incorporating the leadership skills of initiative and being proactive (anticipating an issue, problem, etc. and either acting on it or bringing it forward), being able to assess different layers of information to come to conclusions and/or solutions.

John from The Agency Guy: Seeing the copyrighting ability making a comeback, especially since many people are blogging, creating white papers, etc., and the need for generating content, content maintenance and privacy and security. He suggested we offer curriculum in website management (not necessarily website development) and use WordPress.

Another area needing new hires is in the field of social media: knowing the difference between paid or organic sites. Having a paid site is where it’s at. Every business needs a presence on social media.

**Question**: Job outlooks for the following jobs are very good: executive assistants, C-Suite executives (e.g.: CEO, CFO, CIO, etc.), human resources assistants, Medical Clerk III, Disability Claims and decedent claims personnel, EDD assistants and private insurance companies, using electronic records, understand, create and manage budgets.

**Question**: New technologies we should be preparing students: how to manipulate, update, assist users with website portals (e.g. kp.org); data mining and data warehousing records; writing and using mobile apps; knowing CMS (content management systems) and knowing the fundamentals of how a website works; INDEPENDENCE AND INITIATIVE (not new, but necessary!)

**Question**: The augmented and virtual reality worlds are not out for business use as yet.

**Question**: Disconnect between skills needed for a particular position and skills that current college graduates possess and how to address it:

Incorporate conflict resolution in our classes with the intention of collaborating effectively; team dynamics; being ready and able for change; remembering there is a margin of error (“hire for attitude and give them the skills”); communication skills.

After reviewing handouts from City College’s proposed Business Information Worker II Certificate of Achievement (16-17 units) and combining the BIW I and BIW II classes to make the Business Information Worker Associate of Science Degree (29-30 units), the Industry Advisory Committee approved both the certificate and associate degree. One suggestion was to include website maintenance in a future certificate.

After the breakout sessions, each group briefly reported back to the large group. Youwen from UC San Marcos spoke about the Hackathon at her campus; there was some discussion of hosting a hackathon at City College.

Michelle Gray briefly spoke about getting industry involvement in scheduling corporate visits for both faculty and students and TechTalks on campus. There were sign-up sheets. If interested, contact Michelle Gray.

The meeting was adjourned at 6:04 p.m. by DSN Leroy Brady.

Respectfully submitted,

Azam Awan & Theresa Savarese

Attachment

Response to Faculty Question From:

**Paul Margolin**

**Senior Associate**

# Booz Allen

 I am not in the Gaming Industry, but we do support some Web Design work. Some trends I am seeing include:

►Extensive use of rapid prototyping tools, combined with subsequent hard-coding to better customize the web design (many tools out there, none seem to be de facto standards)

► A significant need for user interface experts and the use of

 UI patterns and frameworks

► Web pages need to work on all devices (Windows, Unix, iOS, Android, Chrome) and on all size screens with all size keyboard

 ► Dynamic content maximized (jquery, HTML5, CSS)

 ► Bandwidth-sensitive (for our clients in our environments –

 commercial/public doesn’t seem to care about bandwidth issues/costs)

Cyber security – we would like to see grads with commercial certs (starting with Security+, ideally with additional various vendor-specific and OS certs)

GIAC, GCFA is a viable cert. We would be looking to have cyber forensics staff attain additional certs as well, potentially after hiring. Starting with GCFA is a good indication of interest and starting capability

City asked a follow up question asking if it was still relevant to offer the Associate Degree and Certificate of Achievement on C++ language. Rose asked if the campus’ proposed Certificate of Achievement and A.S. focusing on 27-30 units in C++ remained relevant. Paul and the rest of the board agreed and endorsed the C++ degree and certificate.