

## **Listening to Employers:**

What Job Postings Tell Us About Digital Jobs in California

Presented by Ben Bradley, Research Manager Burning Glass Technologies Presented to the Digital Media Educators Conference

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### **Overview**

- > What's Happening in the Job Market?
- > What is the demand for digital skills? Where are these jobs?
- What is the value of developing digital skills? What are hybrid jobs?





## What's Happening in the Job Market?





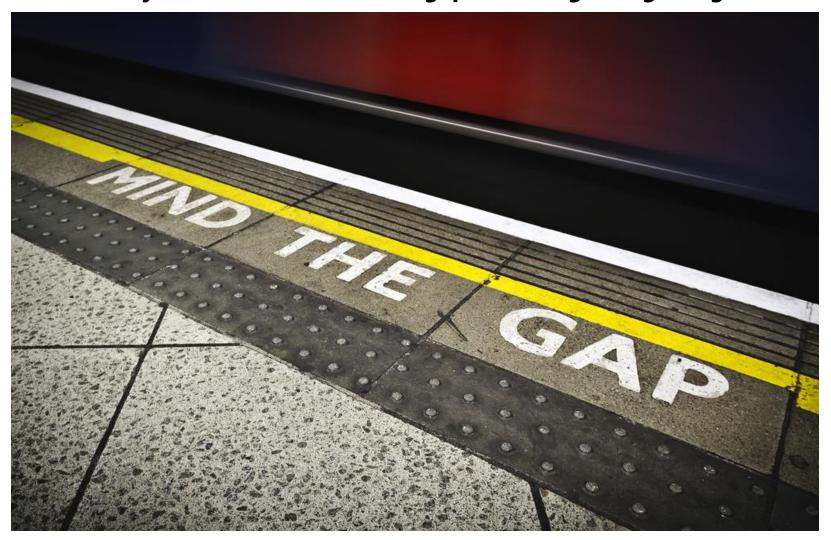
## The Job Market is Gaining Steam...





## ...But the Skills Gap Persists

As the economy moves faster, the skills gap is in danger of getting worse





### **Behind the Skills Gap: An Information Gap**

## Traditional data sources do not align well with the current realities of the labor market.

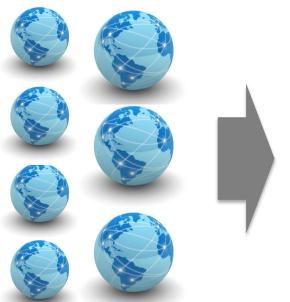
- Data are not packaged for employers or job seekers: They're designed for macro-economists
- > Data are in broad categories
- > Lots of jobs that matter are not tracked
- Skills are hardly tracked at all



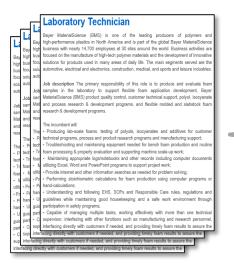
## **Collecting Real-Time Labor Market Data**

Real-time job market data offer up-to-date insights not possible through traditional sources

## Visit Online Job Sites



## Collect & Deduplicate Job Postings



### Read Postings to Generate Detailed Data

- Job Title & Occupation
- Employer & Industry
- Technical Skills
- Foundational Skills
- Certifications
- Educational Requirements
- Experience Levels
- Salaries



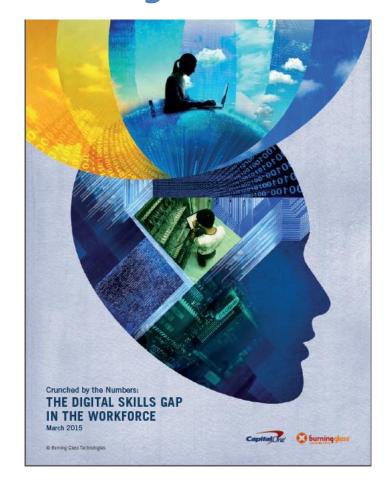
## **Two Unique Insights from Real-Time Labor Data**

- First, it draws on the primary way employers signal what skills they're looking for in the labor market: job ads.
- > Second, it can provide "time to hire" or vacancy duration data, formerly difficult to collect.
- That is a key indicator in assessing whether a skill gap exists.





## Where are the opportunities for digital media and ICT graduates?

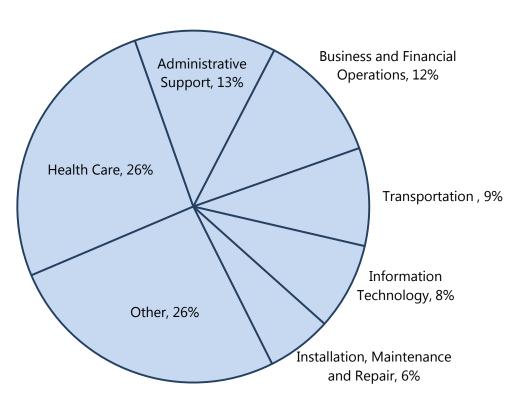




## **Understanding the CA Middle-Skill Jobs Landscape**

In the full year 2014, California had 525,959 middle-skill job postings

### **Distribution of Middle Skill Jobs by Occupation Family**



Occupation Family	Median Hourly Wage
Health Care	\$39.23
Information Technology	\$32.00
Business and Financial Operations	\$31.80
Administrative Support	\$24.36
Installation, Maintenance and Repair	\$22.08
Food Preparation and Serving Related	\$14.93



## **Digital Skills Open Doors to Middle Skill Jobs**

- > **Seven in ten middle-skill jobs require digital skills.** Spreadsheet and work processing proficiencies have become a baseline requirement for the majority of middle-skill opportunities.
- > **Digitally intensive middle-skill occupations are growing faster than other middle-skill jobs.** Digitally intensive jobs have grown 2.5x more rapidly than middle-skill jobs that don't require spreadsheets, word processing, or other digital skills (4.7% vs. 1.9%).
- > Digitally intensive middle-skill jobs pay more more than middle-skill jobs without a digital component. Digitally intensive middle-skill occupations offer 18% higher wages, \$23.76 per hour compared to \$20.14 per hour for all other middle-skill jobs.



## Digital Jobs: Larger, Faster Growing, Higher Paying

For those lacking the necessary skill set, the digital skills gap is a large barrier for career advancement:

- > 78% of middle-skill job postings called for digital skills in 2014
- > Demonstrate robust demand and hourly wage premiums.

Middle-Skill Occupations	Postings	Employment (Source: BLS)	2004-2013 Employment Growth (Source: BLS)	2013 Median Hourly Wage (Source: BLS)
Digital	6,273,985	36,689,590	4.7%	\$23.76
Non-Digital	1,669,971	13,905,090	1.9%	\$20.14



## What are Digital Skills in the Marketplace?

Digital Skill Cluster	Top Skills
Productivity Software Skills	<ul><li>Microsoft Excel</li><li>Microsoft Word &amp; PowerPoint</li><li>SAP</li><li>Oracle</li></ul>
Customer Relationship Management	<ul><li>Salesforce CRM</li><li>SAP CRM</li><li>Siebel CRM</li></ul>
Computer & Network Support	<ul><li>SQL</li><li>Linux</li><li>Cisco</li></ul>
Digital Media & Design	<ul><li>Adobe Photoshop</li><li>Adobe Acrobat</li><li>InDesign</li></ul>
Social Media Tools & Search Engine Analysis	<ul><li>Social Media Platforms</li><li>Blogging</li><li>Google Analytics</li></ul>



## Demand for Digital Skills Cuts Across the Middle-Skill Landscape

- > The majority of middle-skills jobs are digitally intensive
- > These jobs span occupations from health care roles, to administrative support, to pure IT roles.

Occupation Family	Middle-Skill Postings	% of Total Postings in Middle-Skill Occupations	Digitally Intensive Middle-Skill Postings	% of Middle Skill Postings in Digitally Intensive Occupations
Health Care Practitioners and Technical	1,310,069	55%	1,157,450	88%
Office and Administrative Support	1,138,971	49%	1,137,935	100%
Sales and Related	1,084,020	51%	1,020,928	94%
Management	825,862	41%	825,862	100%
Transportation and Material Moving	748,328	61%	18,599	2%
Business and Financial Operations	644,695	46%	644,695	100%
Installation, Maintenance, and Repair	600,420	97%	210,476	35%
Computer and Mathematical	538,969	23%	538,969	100%
Production	227,548	46%	181,465	80%
Construction and Extraction	180,093	82%	37,751	21%
All Other	644,981	15%	499,855	77%
Total	7,943,956	41%	6,222,207	78%



## **Productivity Software is a Baseline Skill**

> Knowledge of Word and Excel alone coincide with a 10% increase in pay

Digital Skill Cluster	Postings	% of all Middle-Skill Demand	2004 – 2013 Employment Growth (Source: BLS)	<b>2013 Median Wage</b> (Source: BLS)
Non-Digital Middle-Skill	1,669,971	21%	1.9%	\$20.14
Digital Middle-Skill	6,273,785	<b>79</b> %	4.7%	\$23.76
<b>Productivity Software</b>	3,081,366	39%	5.2%	\$22.66
Customer Relationship Management	974,173	12%	16.20%	\$28.90
Computer & Network Support	499,588	6%	34.6%	\$28.84
Social Media & Search Engine	326,547	4%	9.4%	\$25.74
Health Information Technology	260,039	3%	17.0%	\$17.08
Machining Technology	179,218	2%	-5.9%	\$22.04
Digital Media & Design	132,692	2%	25.5%	\$26.06



## **Productivity Software is a Baseline Skill**

- > Strong opportunity exists to translate into digital skills to the business world
- > These are required to advance in retail, and to work in offices

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Top Occupations demanding Productivity Software		
Office / Administrative Assistant		
Retail Supervisor		
Store Manager		



## **Computer & Networking Digital Skill Opportunities**

> The highest wage premium comes in with the jobs applying digital skills to computer maintenance

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## **Computer & Networking Digital Skill Opportunities**

> Broad range of roles, with strong career advancement opportunities, through application of digital skills in IT.

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Top Occupations demanding Computer & Network Support Skills			
Computer Support Specialist			
Network/Systems Administrator			
Network Support Specialist			



## What opportunities exist for digital media and design work in California?

Sub BA Jobs Requesting Digital Media and Design Skills

(Ranked in Order of Frequency)

**Graphic Designers** 

**Retail Salespersons** 

Secretaries and Administrative Assistants

**Sales Representatives** 

**Surveyors** 

Web Developers

**Photographers** 

Market Research Analysts and Marketing Specialists

**Software Developers** 

Skills Required for Sub BA Jobs and Digital Production and Design (Ranked in Order of Frequency)

Photography

**Adobe Creative Suite** 

**Graphic Design** 

**Scheduling** 

**Data Entry** 

First Aid

Computer Aided Drafting/Design

**Loss Prevention** 

**Sales** 

Web Site Design



## What opportunities exist for social media skills?

Sub BA Jobs Requesting Social Media Skills (Ranked in Order of Frequency)	Growth rate, 2012 present
Human Resources Specialists	211%
Sales Representatives: Wholesale and Manufacturing, Except Technical and Scientific Products	91%
Secretaries and Administrative Assistants: Except Legal, Medical, and Executive	187%
First-Line Supervisors of Retail Sales Workers	81%
Property, Real Estate, and Community Association Managers	52%
First-Line Supervisors of Office and Administrative Support Workers	189%
Customer Service Representatives	304%
Executive Secretaries and Executive Administrative Assistants	223%
Meeting, Convention, and Event Planners	102%
Document Management Specialists	63%



# Which brings us to ... Hybrid Jobs



## **Jobs Request a Mix of Skills**

- The growth of the Internet and mobile technologies are creating a demand for hybrid workers with the skills to bridge previously distinct functions.
- > There were more than **250,000 postings nationally**, and nearly **50,000 in California** for these jobs over the past 12 months.

**Occupations** (Ranked in Order of Frequency)

Web Development and Design

Digital Marketing and Marketing Automation

Mobile Development

**Data Analytics** 

**Product Management** 

User Interface/User Experience (UI/UX)

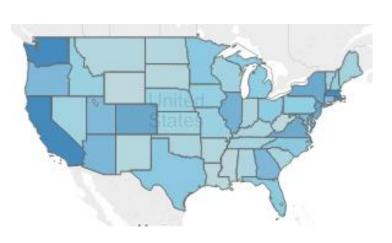


## **Jobs Request a Mix of Skills**

- > These jobs are concentrated in tech hubs, including San Francisco, New York, and Boston
- > These jobs are growing nationally, seeping into additional markets.

### **Total Job Postings** →

California has the highest number of total postings for hybrid jobs.





### **←Job Postings Per Capita**

On a per-capita basis, Washington, DC ranks highest, followed by California and Massachusetts

Posting counts dates: April 1, 2014 - March 31, 2015



## **Hybrid Skill Sets: Marketing**

> The merging of marketing and IT has created a need for **hybrid workers with the skills to bridge these distinct functions**.

#### **Example: Digital Marketing**

Digital Marketers combine core business and marketing skills with IT skills to drive targeted and interactive marketing for companies.

#### **IT and Data Skills**

- Social Media Skills
- Marketing Automation Software
- Google Analytics
- Google AdWords

## Marketing & Soft Skills

- Marketing
- Communication
- Creativity
- Project Management

### **Fastest Growing Skills**

- Google Analytics & Adwords
- Key Performance Indicators
- Content Development
- Oracle
- Marketing Automation Software
- Content Management
- CRM Software
- Email Campaigns
- Social Media
- Blogging



## **Hybrid Skill Sets: UI / UX**

> These hybrid workers are similarly in demand for **website design development**, **user experience**, and more.

#### **Example: UI/UX**

User Experience designers (and gurus) combine core design skills and accessible IT skills to drive support user experience of websites

#### **Advanced IT Skills**

- JavaScript
- User Interface (UI) Design
- HTML5
- jQuery
- Information Architecture

## Graphic Design & Baseline Skills

- Adobe Creative Suite
- Research
- Communication
- Visual Design
- Creativity

### **Fastest Growing Skills**

- HTML5
- Adobe Creative Suite
- InDesign
- Agile Development
- Scrum
- Prototyping
- Visual Design



## **Implications**

- Digital media skills and creative skills are increasingly in demand across industry
- > These represent both new roles, such as Social Media Evangelist and UX Guru, and changing old roles in core business functions
- Sub-B.A. programs have a tradition of working closely with the business community.
- If programs align training with the job market and teach specific skills, they can improve their standing and help graduates compete broadly.



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