

# Future of Work: How the Internet Economy is Reshaping Markets for Talents

**Kevin Walker**

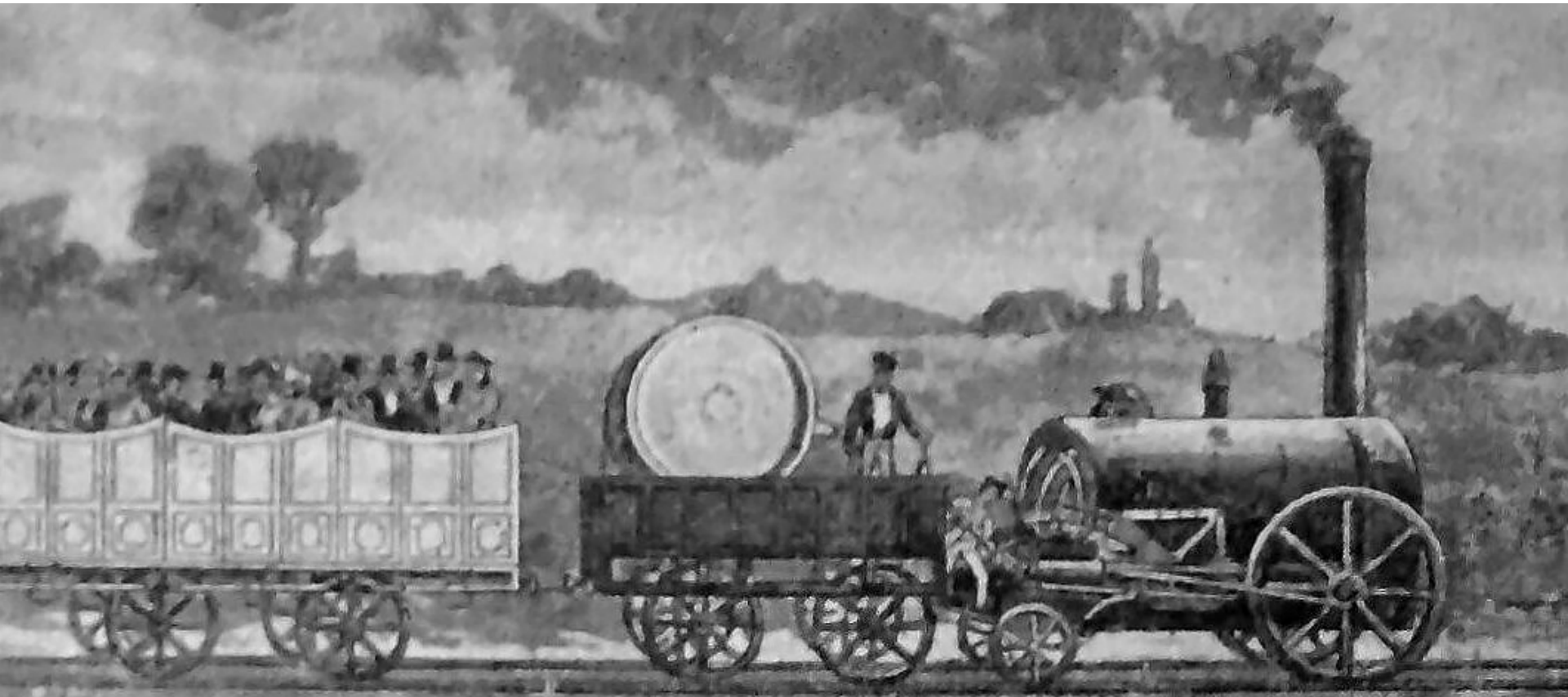
Senior Director, Field Marketing

Indeed

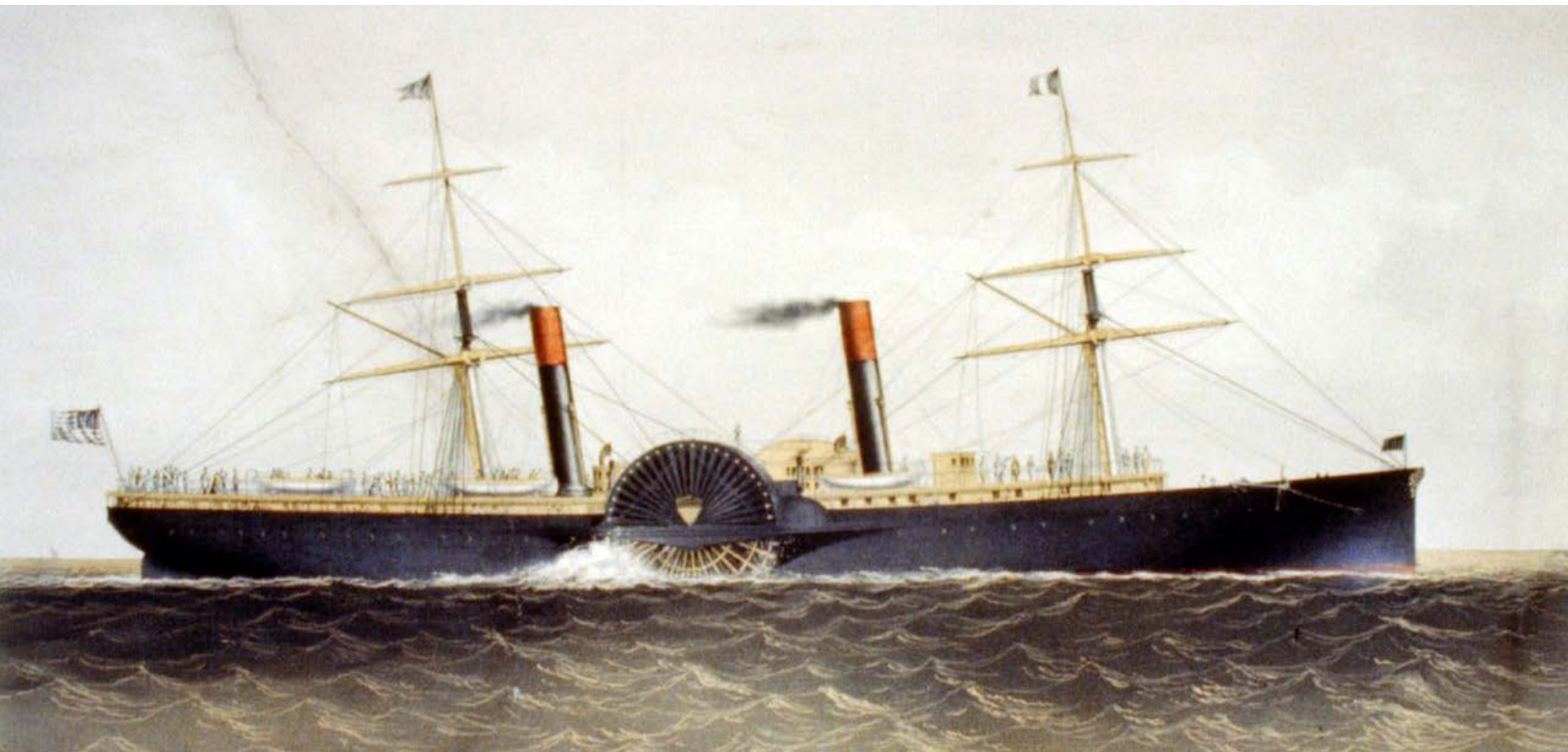
@kpwalk

The greatest economic inflection points of the last  
**200 years** were driven by technology

## 1830 – Liverpool & Manchester Railroad

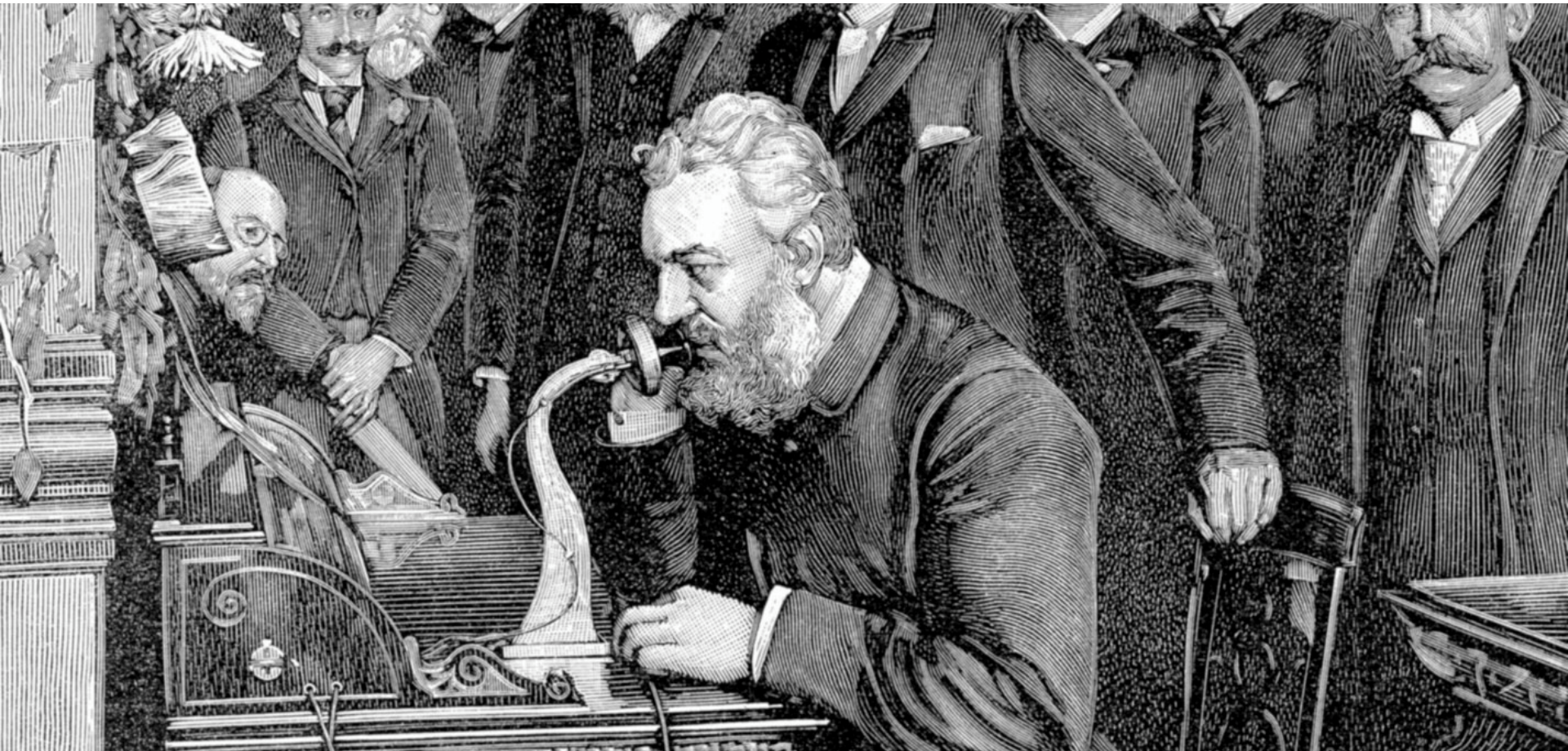


**1870** – Harland & Wolff Iron-Hulled Steam Ship, Belfast





**1876** – First Long-Distance Phone Call, Alexander Graham Bell

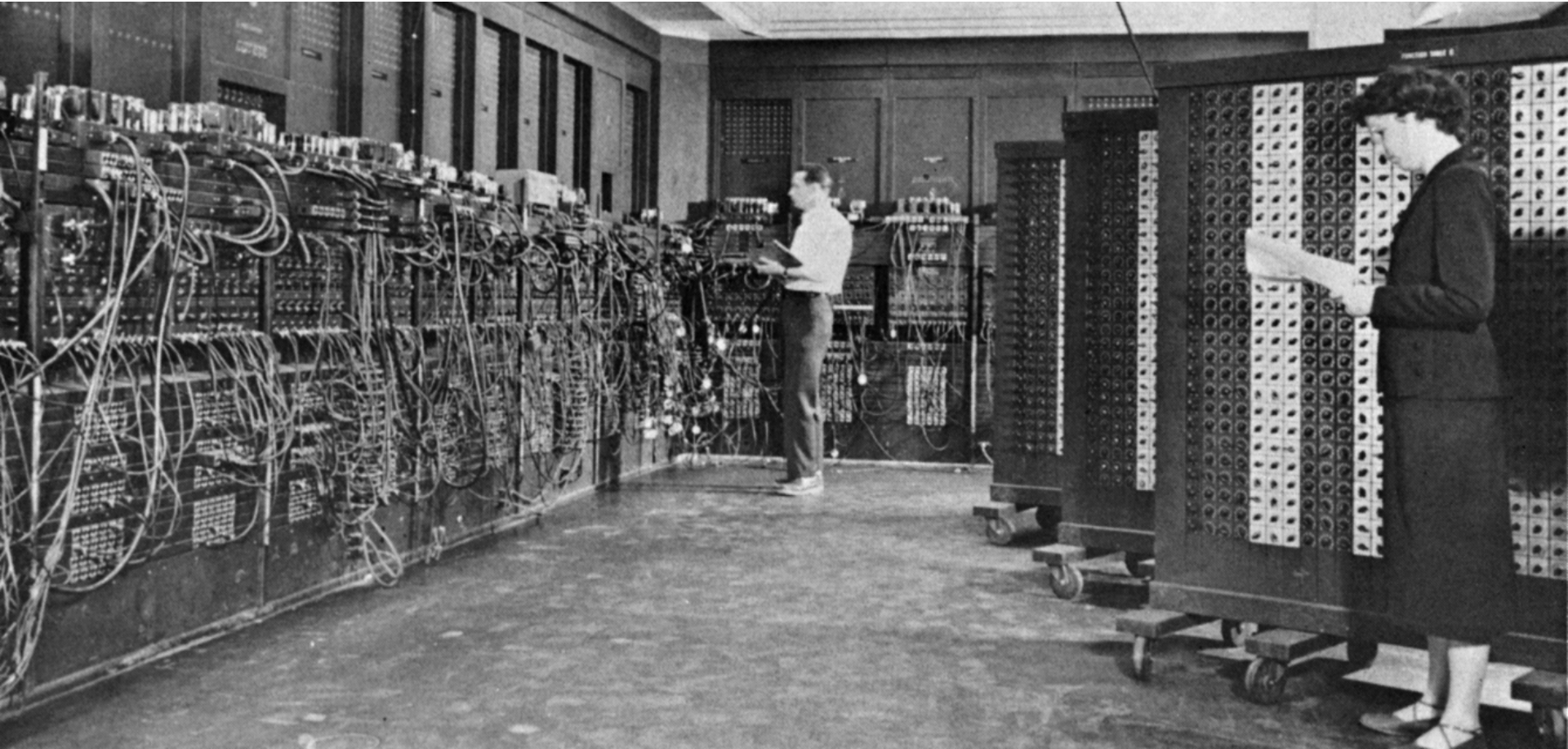


## 1914 – First Assembly Line, Ford





## 1946 – ENIAC, First General Purpose Computer





Each **economic** inflection point  
was a **labour** inflection point, too

**WANTED!**  
**3,000 LABORERS**

On the 12th Division of the  
**ILLINOIS CENTRAL RAILROAD**

**Wages, \$1.25 per Day.**

**Fare, from New-York, only - - \$4.75**

By Railroad and Steamboat, to the work in the  
State of Illinois.

---

Constant employment for two years or more  
given. Good board can be obtained at two  
dollars per week.

This is a rare chance for persons to go  
West, being sure of permanent employment  
in a healthy climate, where land can be  
bought cheap, and for fertility is not surpassed  
in any part of the Union.

Men with families preferred.

For further information in regard to it, call  
at the Central Railroad Office,

**173 BROADWAY,**  
CORNER OF COURTLANDT ST.  
**NEW-YORK.**

**R. B. MASON, Chief Engineer.**  
**H. PHELPS, AGENT,**

July, 1853.



## Now: A new inflection point

Internet + ubiquitous computing + software proliferation

A blue-tinted map of Canada and the northern United States. The map shows provincial and territorial boundaries, major cities, and geographical features like the Great Lakes and the St. Lawrence River. A white text overlay is centered on the map. In the bottom right corner, there is a scale bar in both English miles and kilometers, and the text 'Scale 1:25,000,000'.

With this inflection point, we see 7 trends dramatically reshaping Canadian labour markets

Scale 1:25,000,000

English Miles

0 100 200 300

Kilometres

1

In Canada and other industrialized nations,  
every company is becoming a tech company





# The New Zealand Herald

THURSDAY JULY 22

- Featured
- Latest
- National
- World
- Business
- Sport
- Technology
- Entertainment



## Microsoft announces local Kinect pricing

Kiwis will pay \$229 for Microsoft's Xbox 360 Kinect gesture-sensing control when it goes on sale here at the end of the year. American pricing was announced this week, at a US\$150 price point, and it will go on sale there...



Tech universe: Thursday, 22 July



iPad wait have already premium



Vodafone announces iPad data pricing



Facebook hits half a billion users





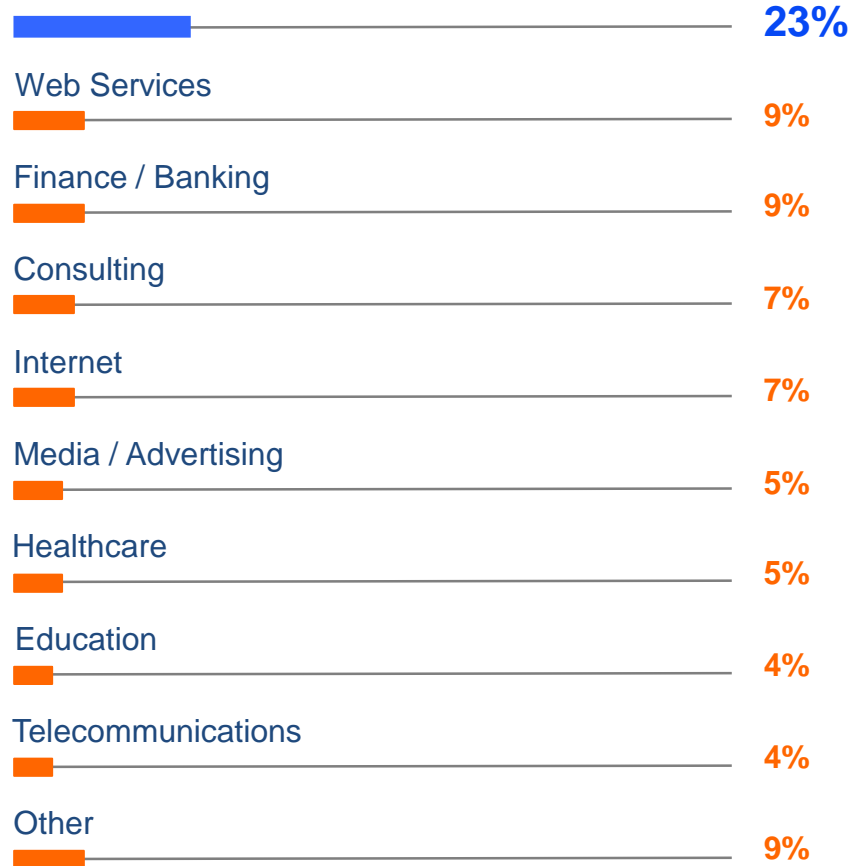




Increasingly, software development is a core part of every industry and a key driver of innovation

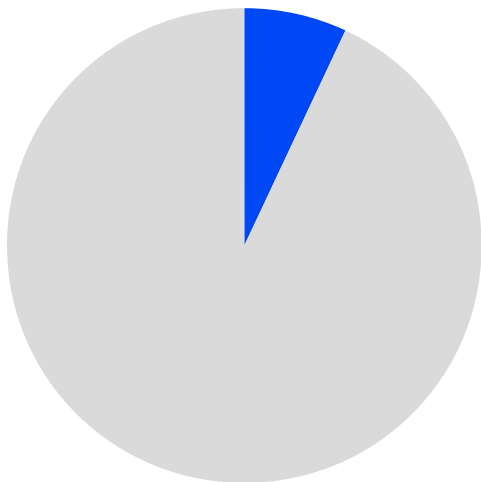
Most **software developers** don't work in software firms

## Software Products





## In the U.S. it's even higher



Analysis of 1.5 million software developers and programmers found that only **7% work for software firms**

- Work for software firms
- Do not work for software firms

A lack of supply of technical talent  
will slow economic growth

# In Canada, tech job postings are much harder to fill than the average role

Rank	Detailed occupation	Share of jobs still open after 90 days
1	software engineer	21.9%
2	senior software engineer	21.6%
3	mobile developer	21.4%
4	web developer	19.5%
5	back end developer	19.4%
6	user interface designer	19.1%
7	android developer	19.1%
8	application developer	18.1%
9	it security specialist	18.0%
10	software developer	17.9%

2

Specialized software is leading to a highly specialized workforce



## Maitre'd

Morgan's Hotel Group ★★★★★ [21 reviews](#) - New York, NY

Job Purpose: Responsible for ensuring that all guests have an Engaging, Dynamic Experience. The Maitre'd will drive the Morgans Hotel Group vision by...

11 days ago - [save job](#) - [email](#) - [more...](#)

Responsible for ensuring that all guests have an Engaging, Dynamic Experience. The Maitre'd will drive the Morgans Hotel Group vision by culturing and crafting a specific flow and energy to our Lobby bar and Lounge with each greeting, seating, and farewell.

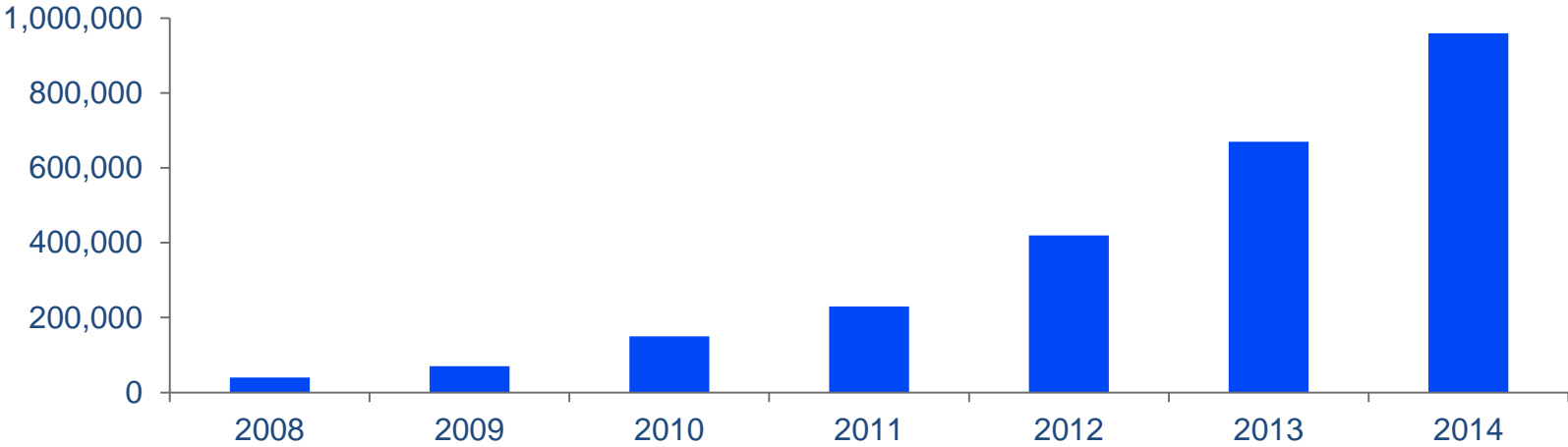
Job Requirements Include:

- Take ownership of the room
- Be fabulous, be present, be friendly, and be there for the staff
- Take ownership of the staff

Knowledge of Oracle MICROS required

Knowledge of OpenTable and 7 Rooms preferred

# Software is defining almost every activity, company and industry

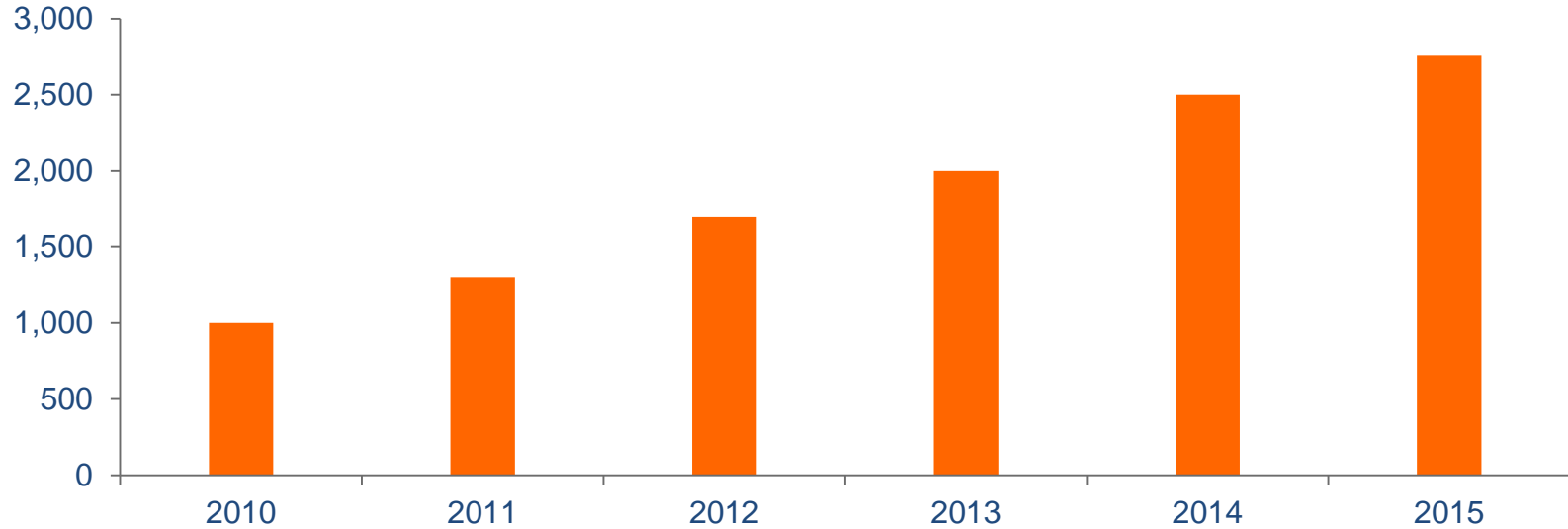


Number of applications in the Apple App Store (excluding games) 2008-2014 has grown **24x** in 6 years

Source: AppLift 2014

# Enterprise software is also proliferating quickly

**Apps in the Salesforce Marketplace**



Source: IZDNet, BusinessInsider

Industry and role-specific software experience  
is increasingly a requirement of the job



# Some companies need marketers with expertise in Marketo

## Field Marketing Manager

Location: Toronto



### Required Skills:

Demonstrable experience of working in a metrics oriented marketing environment, comfortable with analytics, metrics and KPIs as well as experience of working with automation tools such as Marketo, SFDC or similar tools.

# Some manufacturing roles require Oracle experience

## Electro Mechanical Assembler

Location: Calgary, Alberta



### Essential Functions:

Resolve availability of standard material, fabrication parts and shortages of material issues using Oracle effectively.

Java developer, PHP Developer, Web Developer, Software Developer, .Net Developer, Senior Java Developer, Front End Developer, Developer , Sharepoint Developer, UI Developer, Senior .Net Developer, Application Developer, C# Developer, Senior PHP Developer, Senior Software Developer, Python Developer, Senior Developer, C++ Developer, Front-End Developer, SQL Developer, Ruby On Rails Developer , Dot Net Developer, JavaScript Developer, ASP.Net Developer, Senior Web Developer,

Software development roles are also increasingly specialized

Mobile Developer, Front End Web Developer, PHP Web developer , Sr. JAVA Developer, ETL Developer, Salesforce Developer, Drupal Developer, Mobile Application Developer, Wordpress Developer, Oracle Developer, Business Developer, NET Developer, Database Developer, Business Intelligence Developer, Web Application Developer, Frontend Developer, BI Developer, Junior Java Developer, Junior Developer, Java/J2EE Developer, C# .Net Developer, Sr. PHP Developer, Software Developer 3

As a result, work is becoming highly specialized.

1,477,409

unique job titles are on Indeed in a single day in Canada

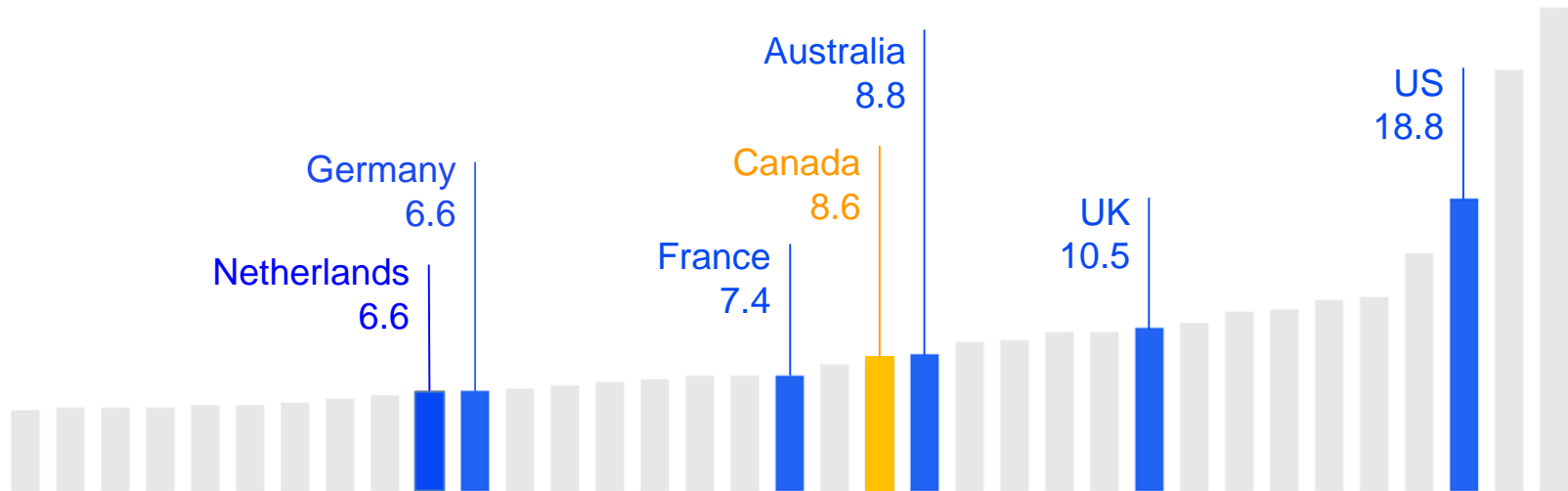
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Today's labour market is becoming two separate markets:  
one for high-skilled workers and one for everyone else



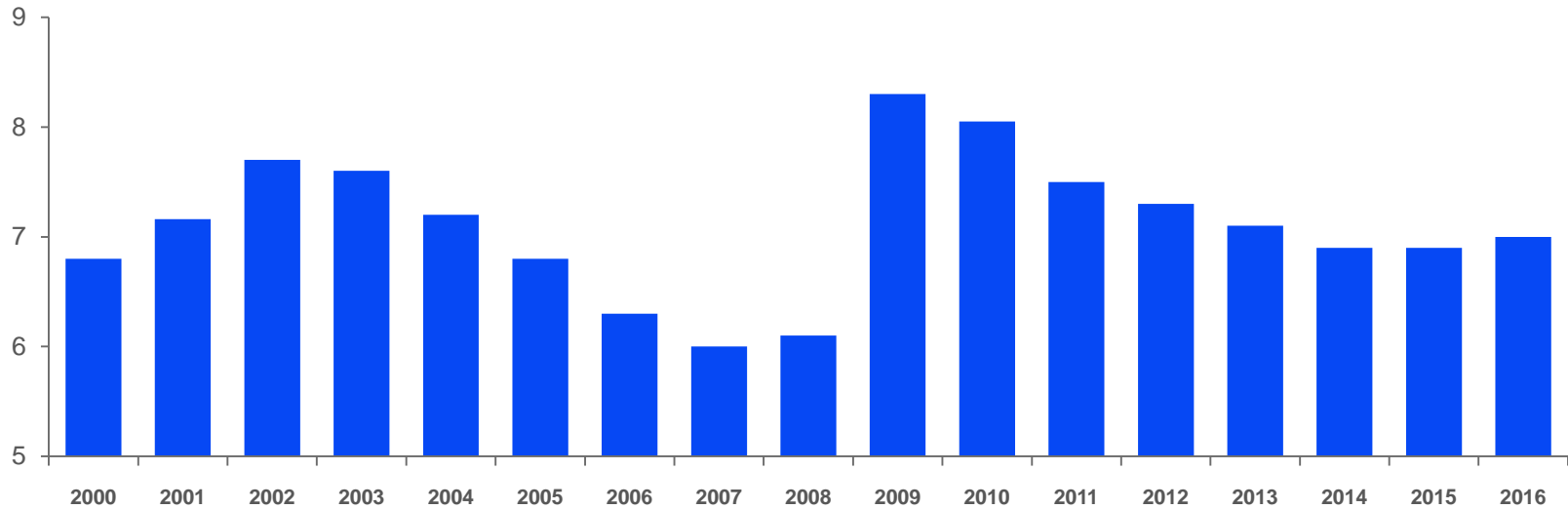
# Inequality is deepening in many countries, and Canada is no exception.

In Canada, the top 10% of earners make 8.6X the bottom 10% earners, compared to 18.8X in the US



# For many Canadians, returning to the job market remains difficult

Unemployment rate in Canada



But highly skilled roles are getting **harder** to fill

Today, **11.5%** of Canadian jobs remain unfilled after 3 months

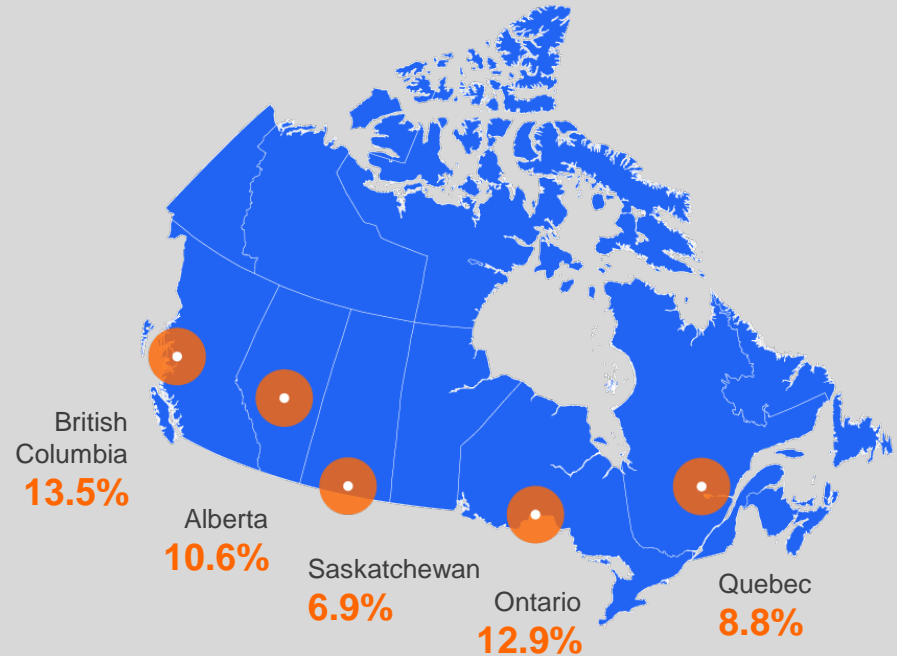
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There are more chronically unfilled vacancies **in British Columbia (13.5%)** than other parts of the country

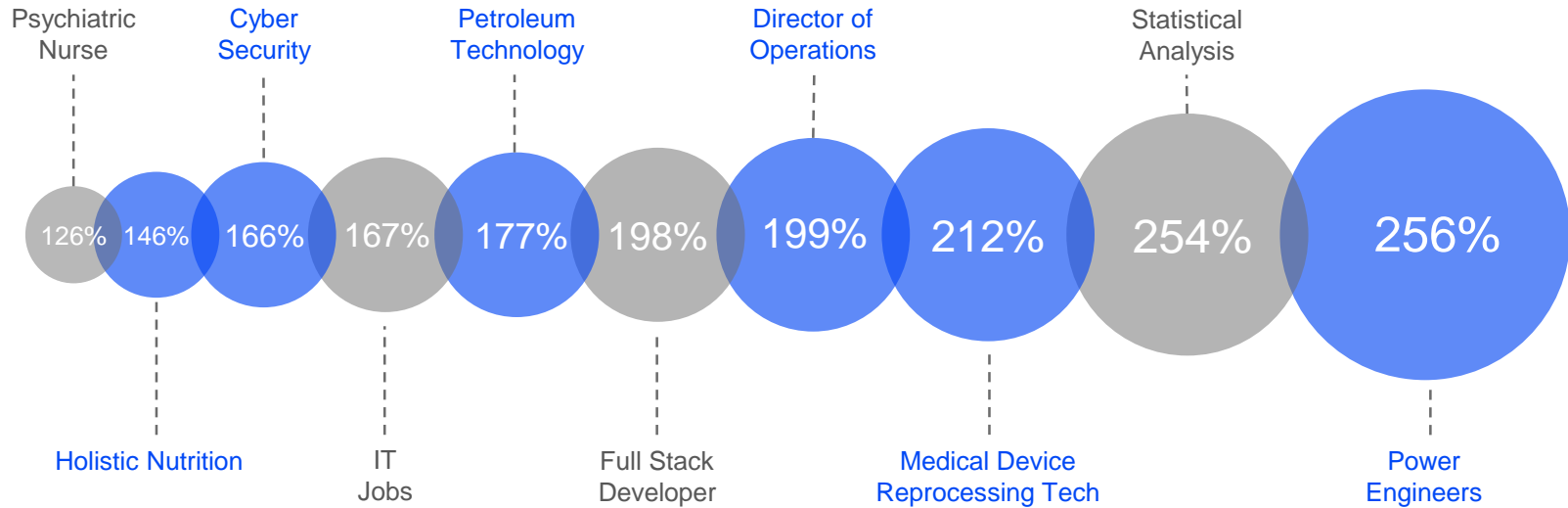
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**Saskatchewan** has a much smaller share (**6.9%**)

Source: Indeed Hiring Lab



# Canadian job seekers are responding to changing labour market dynamics with increased interest in high-demand positions



Today, people from a wide variety of fields  
are successfully entering tech

**48%**

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Of developers never received  
a degree in Computer Science

**33%**

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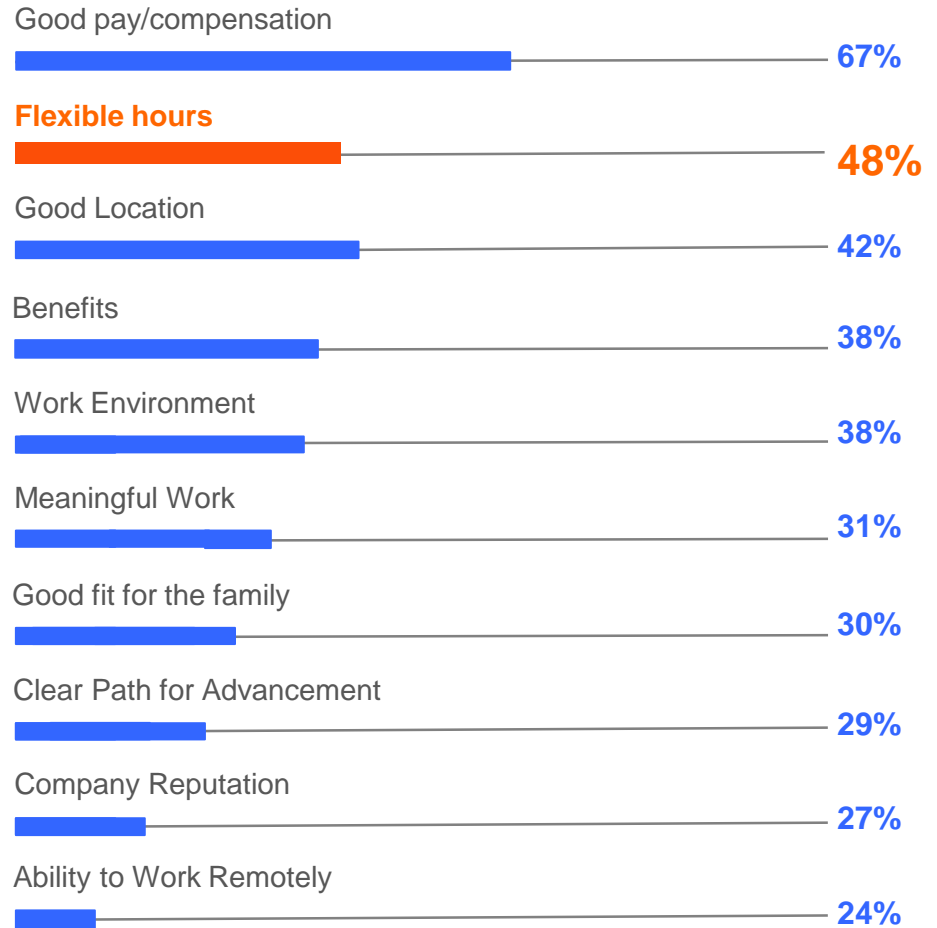
Of developers never took a Computer  
Science university course



4

Full-time jobs are being replaced  
by more flexible alternatives

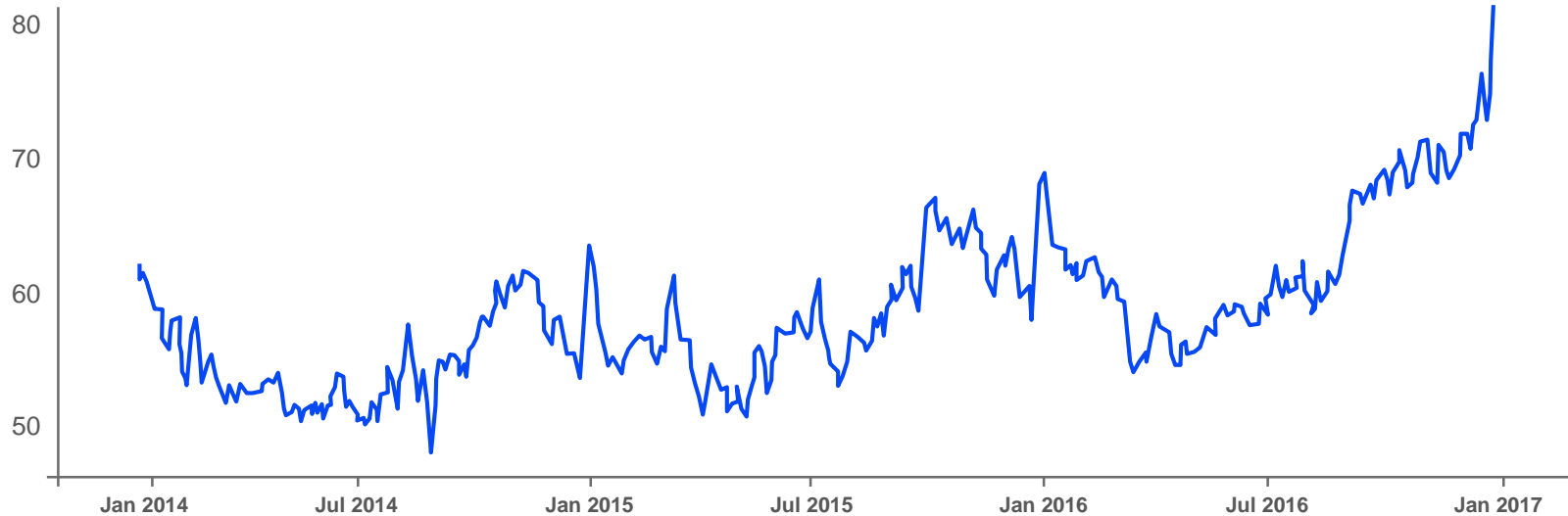
After pay, **flexibility** is the most important requirement when choosing a job for Canadians.



Source: Indeed survey conducted by Harris Poll  
(Base=Employed or not employed but looking,  
n=1271)

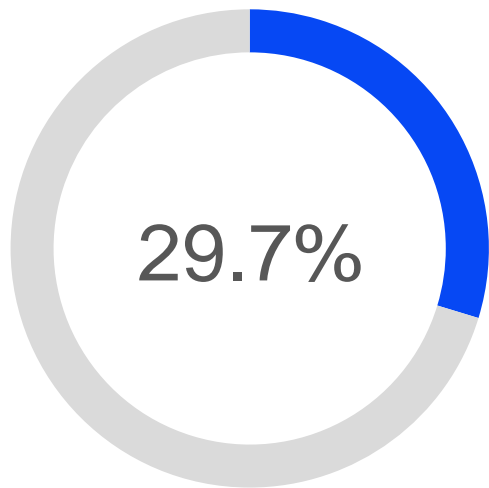
# In Canada, searches for flexible and casual work have grown by 31%

Searches for flexible, telecommute or work from home per 10k searches (2014-2017)

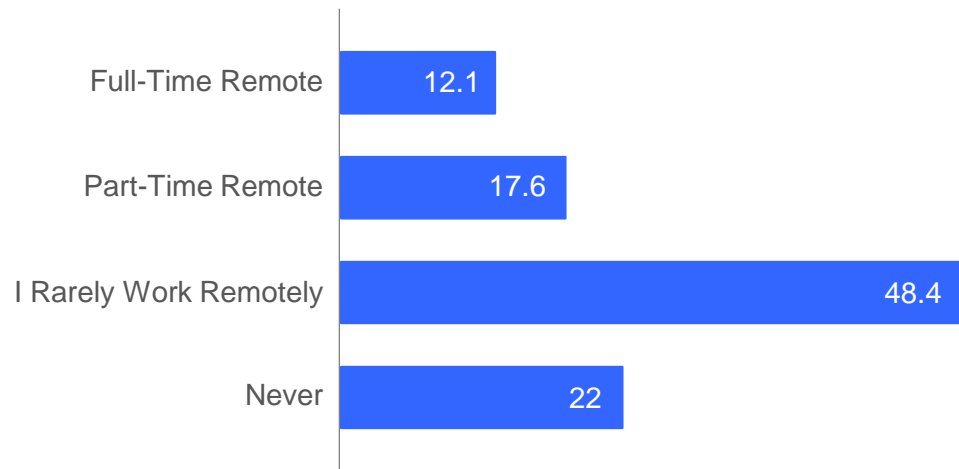


Source: Indeed Hiring Lab

## Even candidates in highly specialized roles are increasingly working remotely

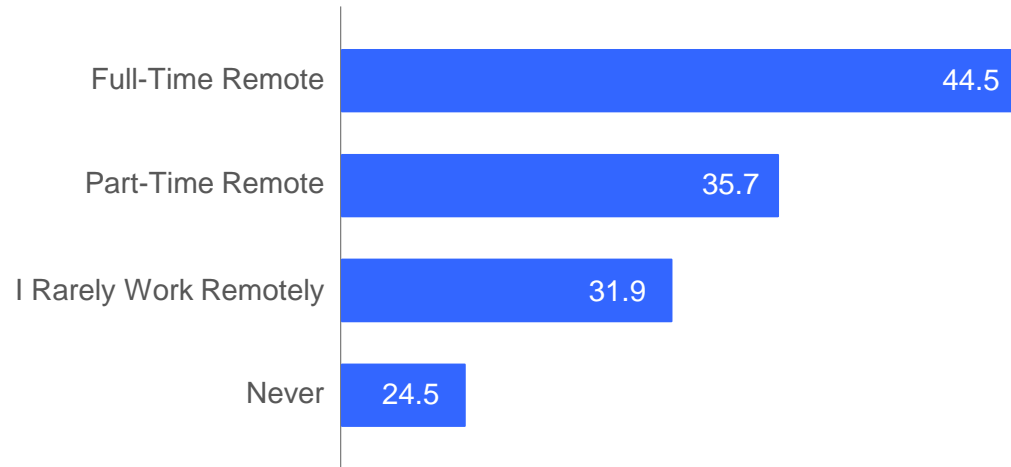


Of software developers work remotely at least part-time, **up 2.4%** from last year



Nearly half of full-time remote workers love their job, while less than ¼ of the never remote workers can say the same

**% of developers who say they love their job**





Around the world, there is a proliferation of new companies providing app-driven, on-demand work



# This is the beginning of an emerging model of commoditized, marketplace-driven “fractional work”

**Reliable employment**

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**High degree of flexibility**

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**Work in small blocks of time**

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**Work for multiple marketplaces**

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**Ideal for people who need to earn money and do something else**

In San Francisco, the center of the new on-demand economy, these companies are in an increasing share of the labour market

2014

0.57%

2015

1.13%

5

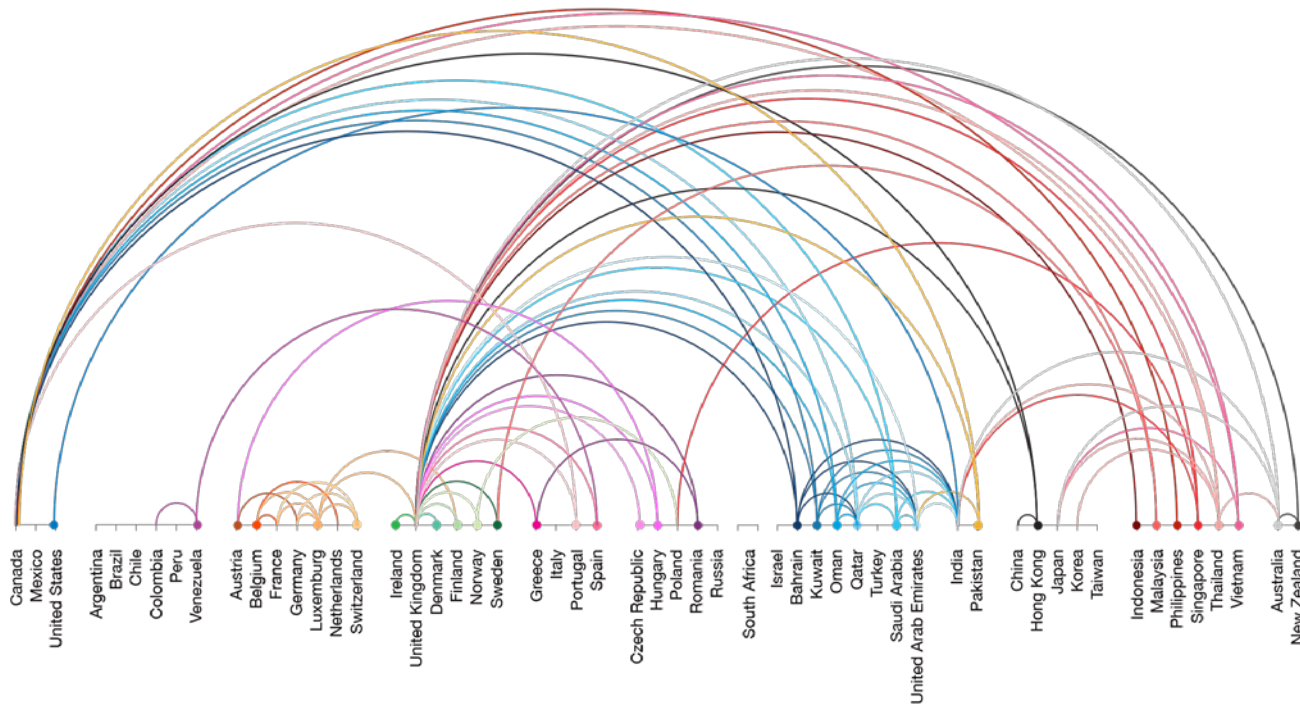
High-skilled labour is a national resource  
that is increasingly mobile

In 2015,

9.1%

of people around the world are actively  
looking for jobs abroad

# Culture, policy, religion, language, colonial history, and economics determine global labour migration paths





# The dynamics of international labour migration in 2016

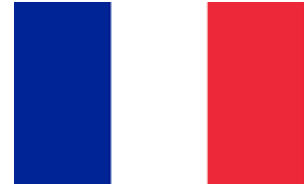
## Top countries most interested in working in Canada



1. United States

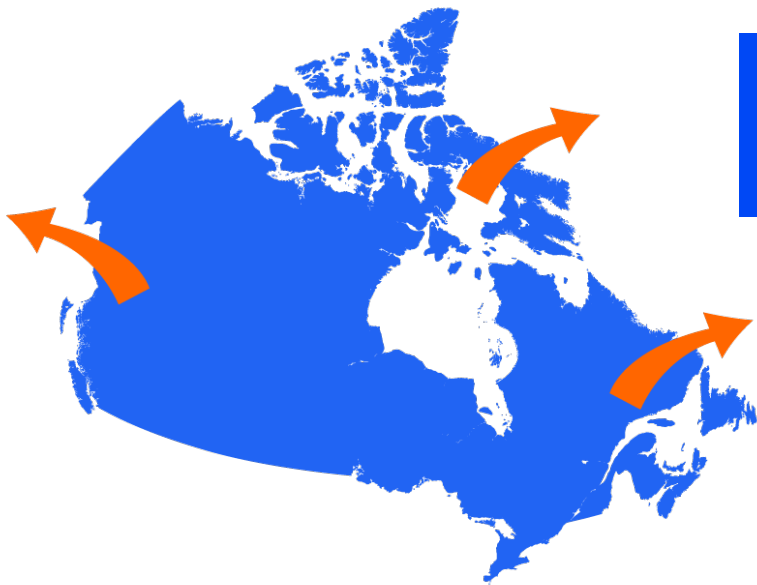


2. United Kingdom



3. France

# 1 out of 19 Canadian job seekers looks at opportunities outside of the country



5.4% of job seekers in Canada are searching for jobs **outside of Canada**

This is a relatively low number:

Oman is at the top at **62%** and

Japan is at the bottom at **1%**

# The dynamics of international labour migration in 2016

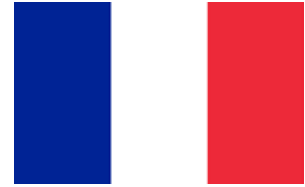
Top countries Canadians are most interested in



1. United States



2. United Kingdom



3. France

## Why do people migrate?

### Top reasons for considering a foreign work assignment



The challenge for Canada is to attract new talent to the country while retaining the existing base of skilled labour

6

Where talent migrates,  
so will the smartest companies

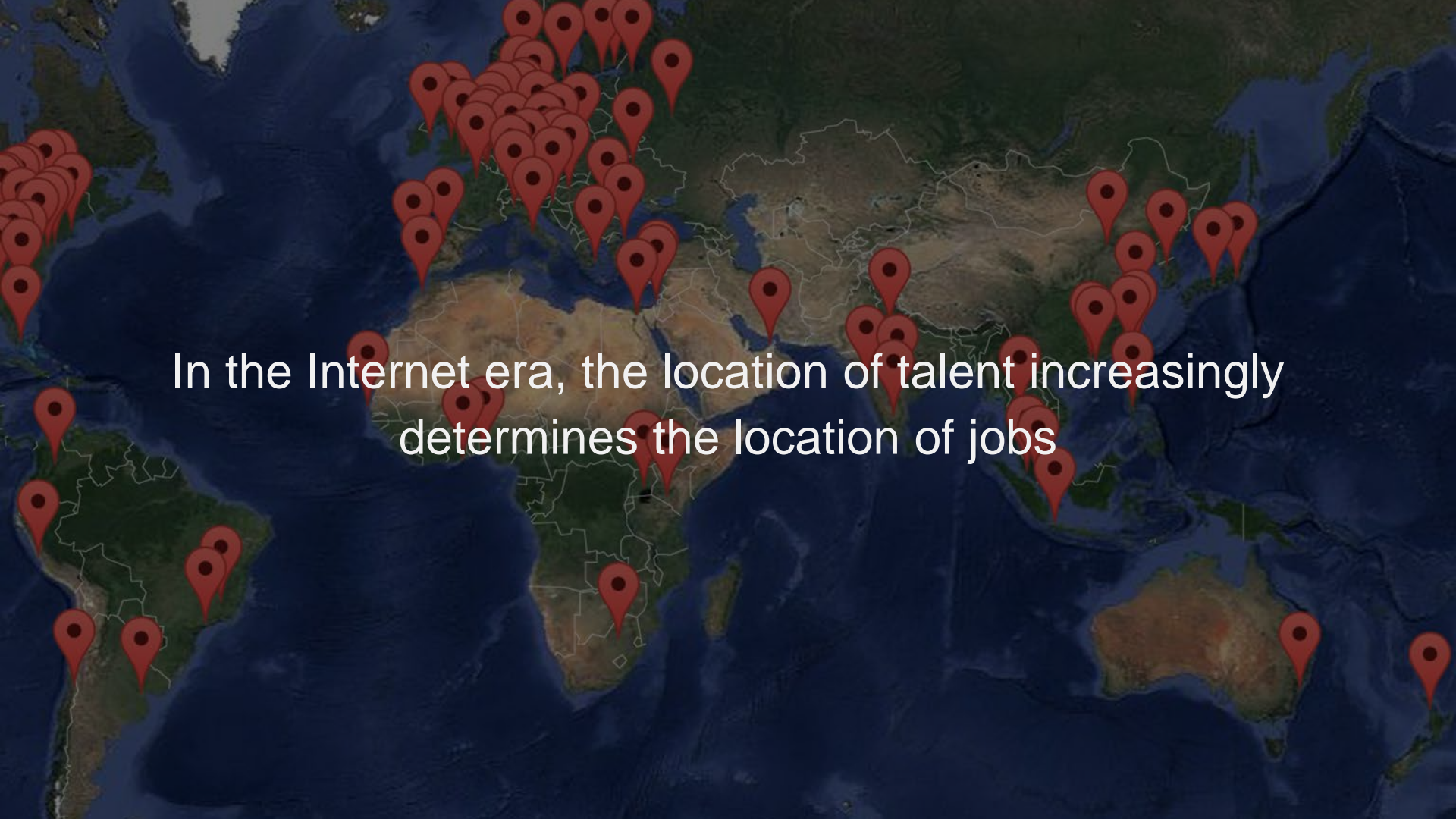


Throughout history, the location of natural resources  
has determined the location of jobs



A black and white photograph of a car assembly line in a factory. The scene is filled with Volkswagen Beetles in various stages of production, from partially assembled frames to nearly finished cars. The cars are arranged in a long line, moving through the factory. The background shows the complex structure of the factory with overhead pipes and lights. The text "With the Industrial Revolution, the location of companies determined the location of jobs" is overlaid in white on the center of the image.

With the Industrial Revolution, the location of companies determined the location of jobs



In the Internet era, the location of talent increasingly determines the location of jobs

# Highly educated people are increasingly concentrated in a few urban hubs



**7.3 billion people** in the world today



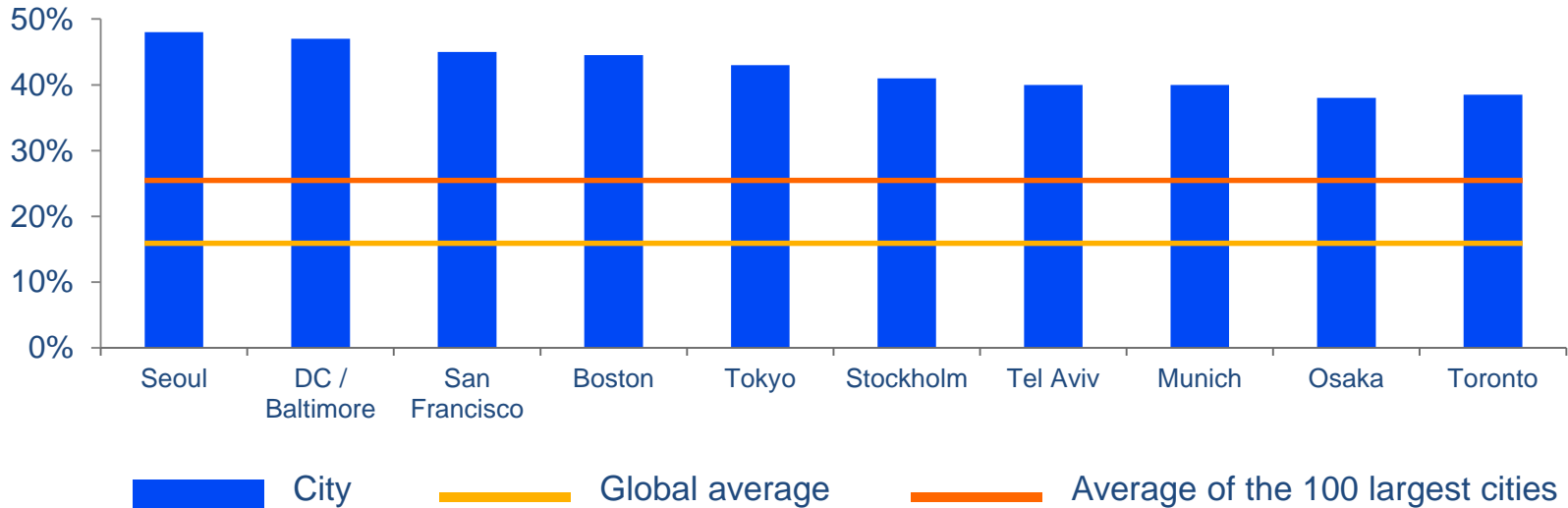
**708 million people** with higher education



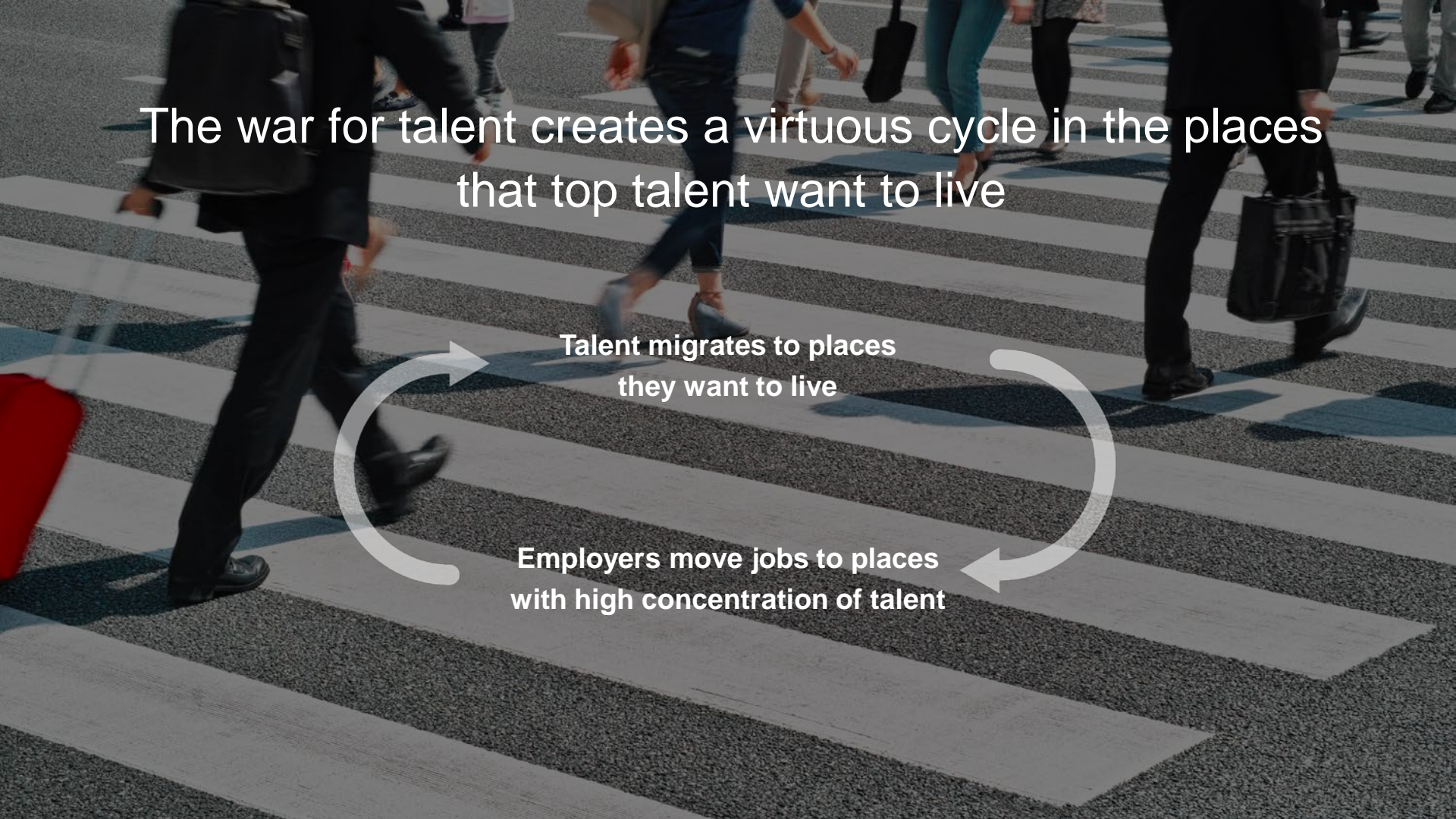
**24%** of the world's educated population lives in just **100 cities**

# One quarter of the world's educated population resides in just **100 cities** that represent just **11%** of the world population

Share of population aged 15+ years with higher education in 2013





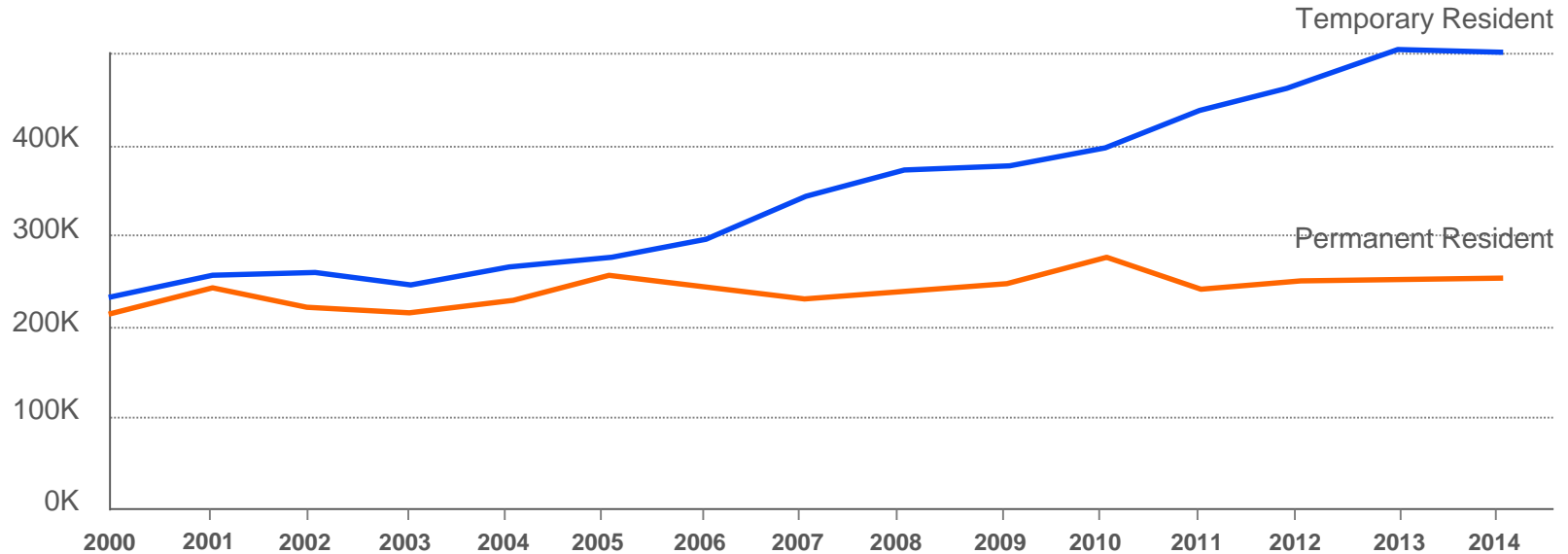


The war for talent creates a virtuous cycle in the places that top talent want to live

Talent migrates to places they want to live

Employers move jobs to places with high concentration of talent

# In 2014, 500K temporary residents and 250K permanent residents arrived in Canada



# Canada is the 10<sup>th</sup> largest economy but the **#3 destination** for talent

## Country's rank as a potential work destination

(% of respondents willing to move there)



U.S.  
42%



UK  
37%



Canada  
35%



Germany  
33%



Switzerland  
29%



France  
29%



Australia  
28%



Spain  
26%



Italy  
25%



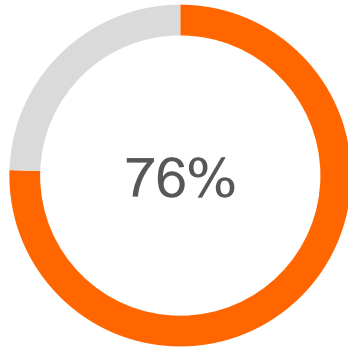
Sweden  
23%



7

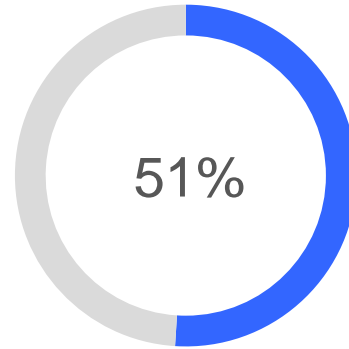
The Internet is changing the way job seekers  
respond to labour market trends

# The Internet has made Canadian job seekers more active than ever before



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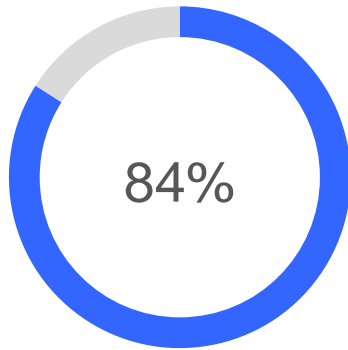
It turns out that **76%** of people say that they are either actively looking or open to a new job



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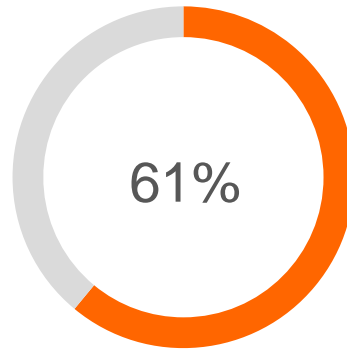
**51%** of people hired in the past year used an online job site or online job board

# An even greater percentage say they actively look at job opportunities



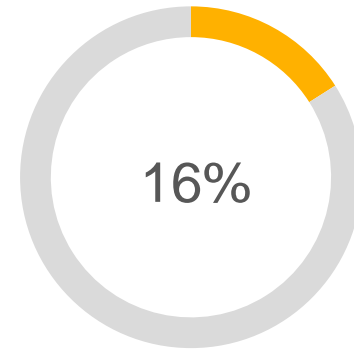
.....

**Look** at job opportunities



.....

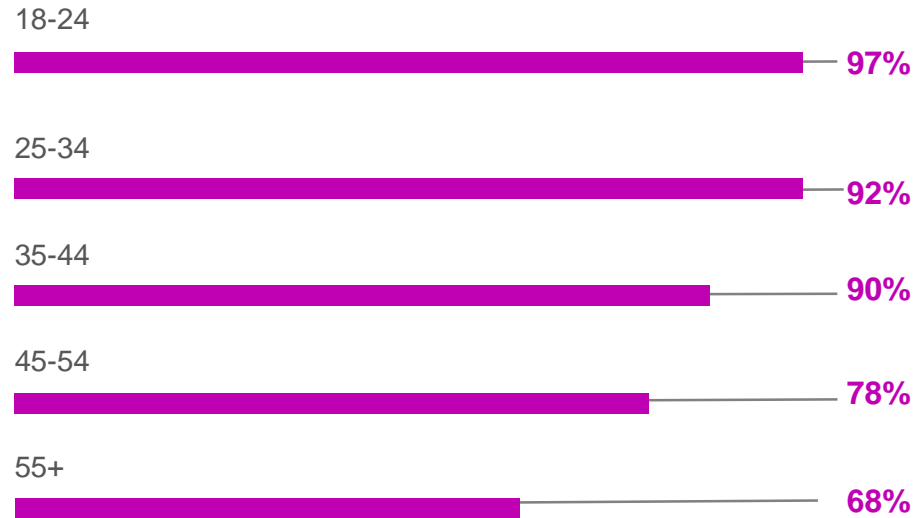
Look at job opportunities **at least monthly**



.....

**Never** look at job opportunities

Canadians who most actively look at job opportunities are between 18-24 years old

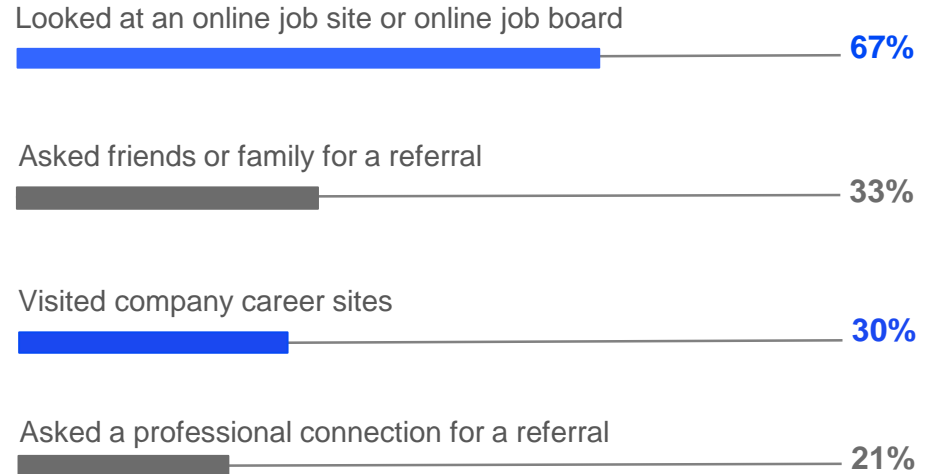


Source: Indeed survey conducted by Harris Poll (Base=Employed or not employed but looking: 18-24, n=146; 25-34, n=260; 35-44, n=224; 45-54, n=222; 55+, n=149)

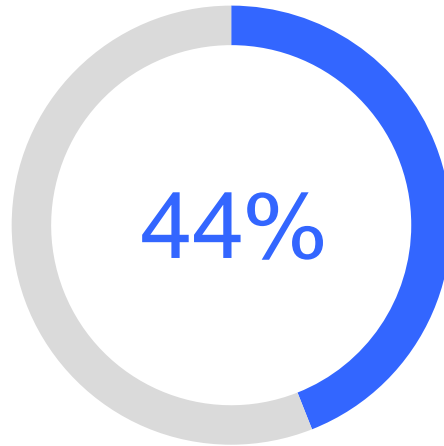
# In Canada, the large majority of people take an action to find a job 6 months prior to being hired

## 96%

of employed adults hired within the past year took an action to find a job 6 months prior to being hired



# A large percentage of Canadians have job alerts that bring new listings to them



Workers/job seekers  
subscribe to job alerts

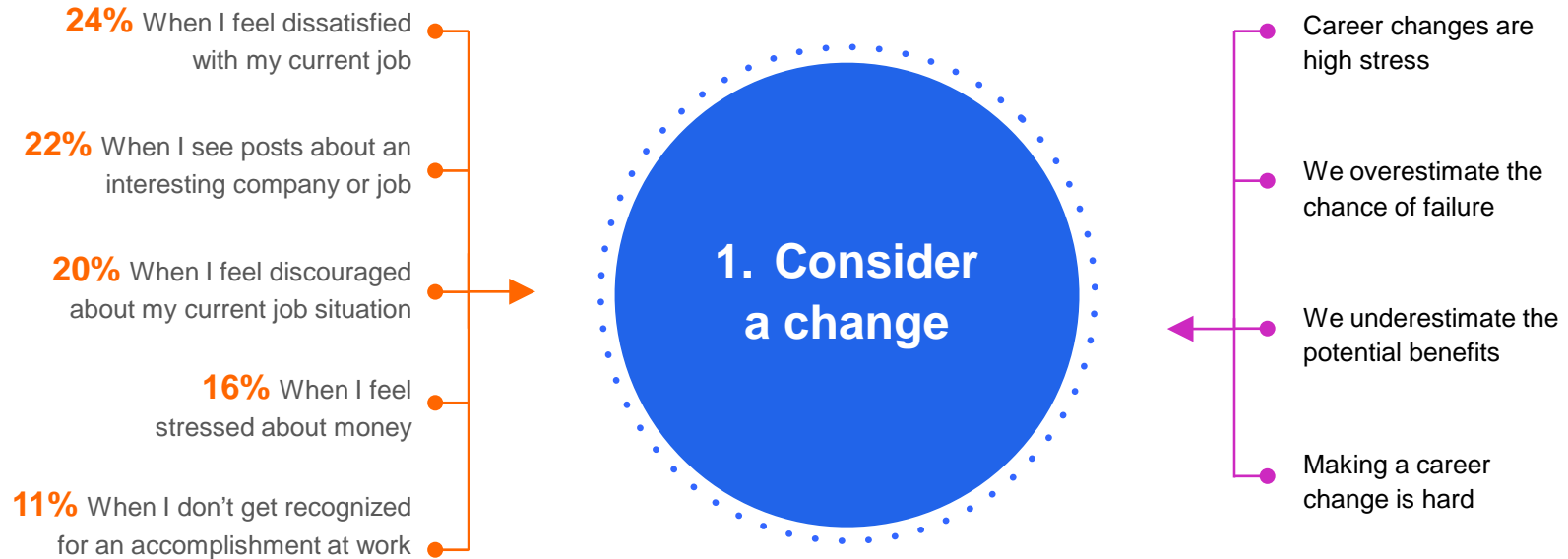


The job search never ends.

65%

of hired candidates worldwide return within  
91 days and look at another job

# People look for jobs when they are inspired by new opportunities or disillusioned with their current work





Candidates believe it's important to direct their own job search

**78%**

**somewhat or strongly agree**

.....  
“When deciding whether or not to accept a job offer, it’s important to me that I’ve looked around at other opportunities first.”

**53%**

**of employed adults**

.....  
“I think I would be more successful in a job I found and got on my own versus a job which I got through a recruiter or company that contacted me.”

# The 7 Trends Reshaping Markets for Talent

- 1 Every company is becoming a tech company
- 2 Specialized software is leading to a specialized workforce
- 3 The bifurcation of labour markets based on skill
- 4 Full-time jobs being replaced by more flexible alternatives
- 5 Labour is a national asset that is increasingly mobile
- 6 Smart companies are following talent around the world
- 7 The Internet is changing the way people look for jobs

The background is an abstract composition of overlapping, semi-transparent geometric shapes in various shades of orange and yellow. The shapes are irregular polygons and triangles, creating a layered, crystalline effect. The colors range from a deep, dark orange to a bright, almost white yellow, with most of the composition in the mid-range of the spectrum. The overall impression is one of dynamic energy and complexity.

So where do we go from here?



4

implications for Canada

Scale 1:25,000,0

English Miles

0 100 200 300

Kilometres

1

The skills shortage is permanent and will require education, policy and immigration changes to keep up with growing employer demand





2

Many chronically unfilled roles drive either revenue or innovation for Canada companies, providing a drag on national competitiveness

A man with grey hair, wearing a light blue button-down shirt, is speaking and gesturing with his hands. He is sitting at a table with a woman with dark hair, wearing a red blazer, who is listening attentively. They are in a meeting room with papers and a model on the table. A white circle with the number 3 is overlaid on the man's chest.

3

Canada is a top world destination for talent, which in the Internet era can be a foundation for job creation and economic growth

A woman with long dark hair, wearing a white sleeveless top, is seated at a desk in a dimly lit office. She is looking down at a document in her hands while her other hand rests on a laptop keyboard. A large computer monitor is visible to her right. The background shows a bulletin board with papers and a window with a wooden frame. The overall atmosphere is professional and focused.

4

Canadian companies can attract skilled candidates by offering increased flexibility



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**Kevin Walker**

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