

It's a Great Time to be in IT

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What is Information Technology?



We talk about IT a lot, but do we ever really define it?

Has it changed over the last 30 years?

How do you define an Information Technology worker today?

3 Types of IT workers



IT can be broken down into three subsets:

- **Infrastructure management and support**
 - Traditional IT jobs
 - This is what we mean when we talk about the company 'computer guy'
- **Application development**
 - Traditional IT jobs
 - The 'coder'
- **Decision support**
 - Non-Traditional IT jobs
 - Everyone else



“Tech support”, “Hardware guys”, “Rack jockeys”, “router techs”, “IT squad”, “Geek squad”

Basically, the people that make sure everything stays running

Traditional job titles:

- Help Desk / Tech Support
- Systems Administration
- Network Administration
- DBA
- Systems Analyst



“The Gurus”, “Code Monkeys”, “Developers”

The people that create the systems we use

Traditional job titles:

- Programmer
 - Java, C#, .Net, C++, COBOL, PHP, Visual Basic
- Project Manager
- Systems Architect



“The Rest of Us”

Everyone else in the IT world

Traditional job titles:

- Project Manager
- Systems Analyst
- Team Leader
- CIO



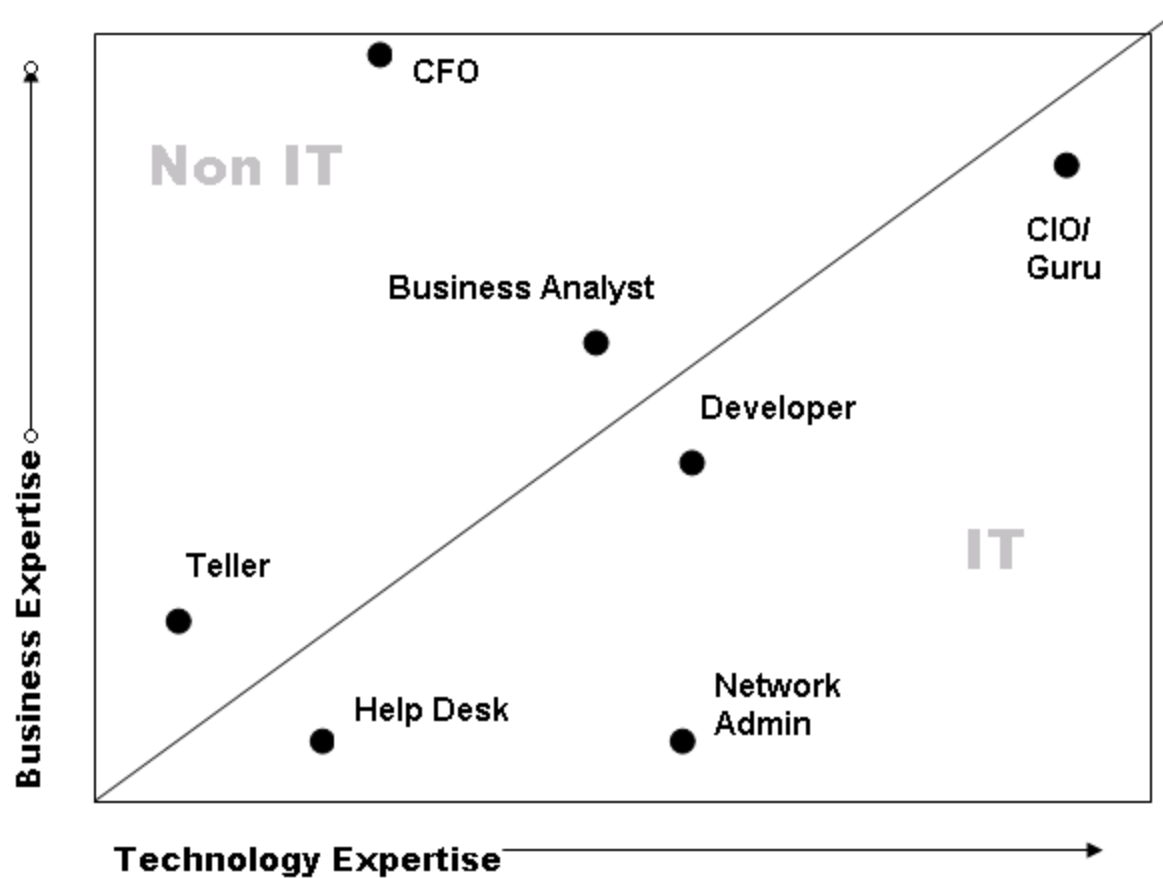
IT Workers:

- **Skills Required**
 - Basic knowledge of common PC desktop applications
 - Ability to problem solve, take a scientific approach to problems
 - Understanding of the general trends and history of the technology industry
- **Job Responsibilities**
 - Use technology as a decision support tool
 - Use technology to increase productivity

The Traditional IT worker graph



Traditional Definition of IT



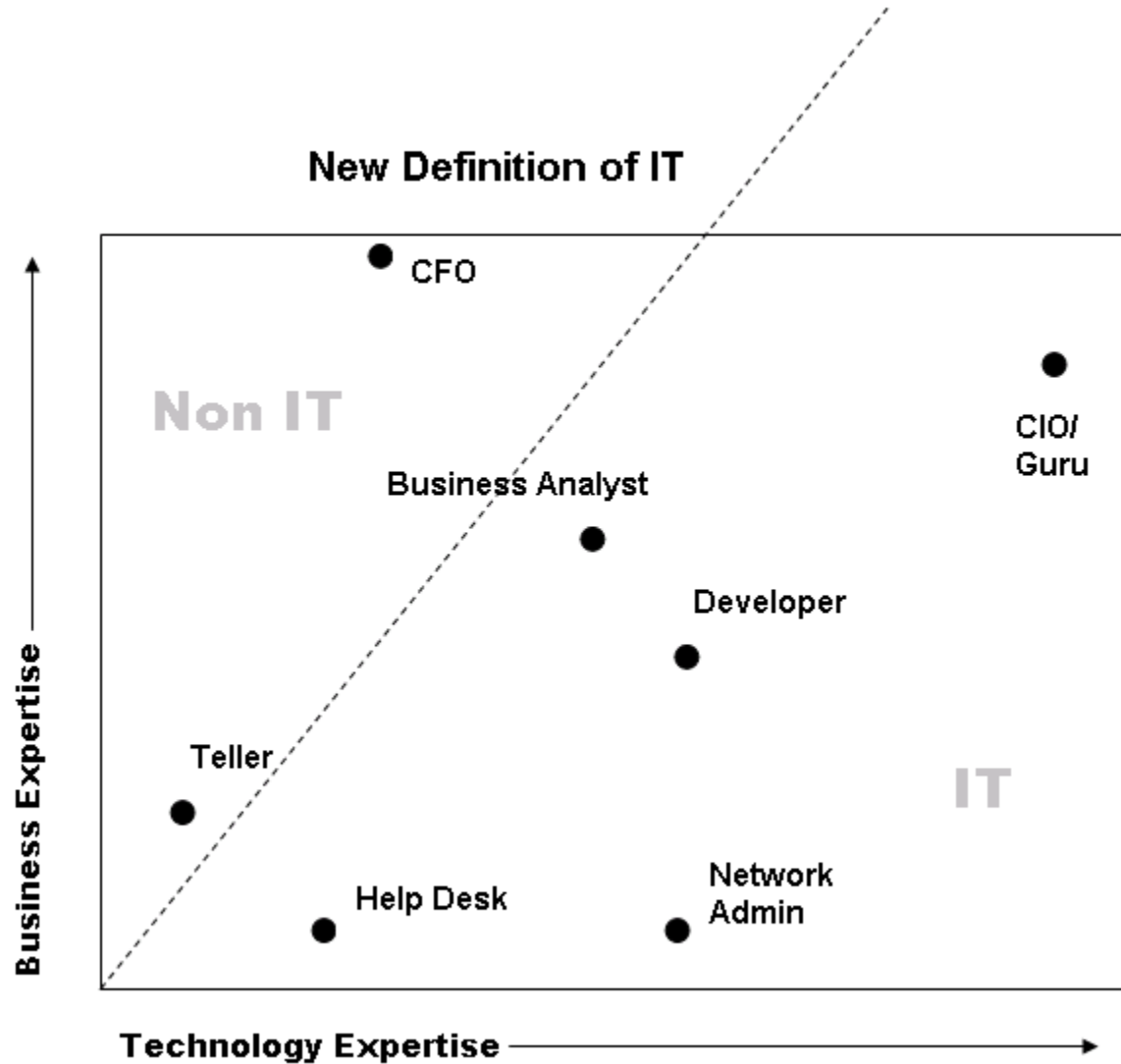


Non-IT Workers:

- **Skills Required**
 - Basic knowledge of common PC desktop applications
 - Ability to problem solve, take a scientific approach to problems
 - Understanding of the general trends and history of the technology industry
- **Job Responsibilities**
 - Use technology as a decision support tool
 - Use technology to increase productivity

Do you see a pattern?

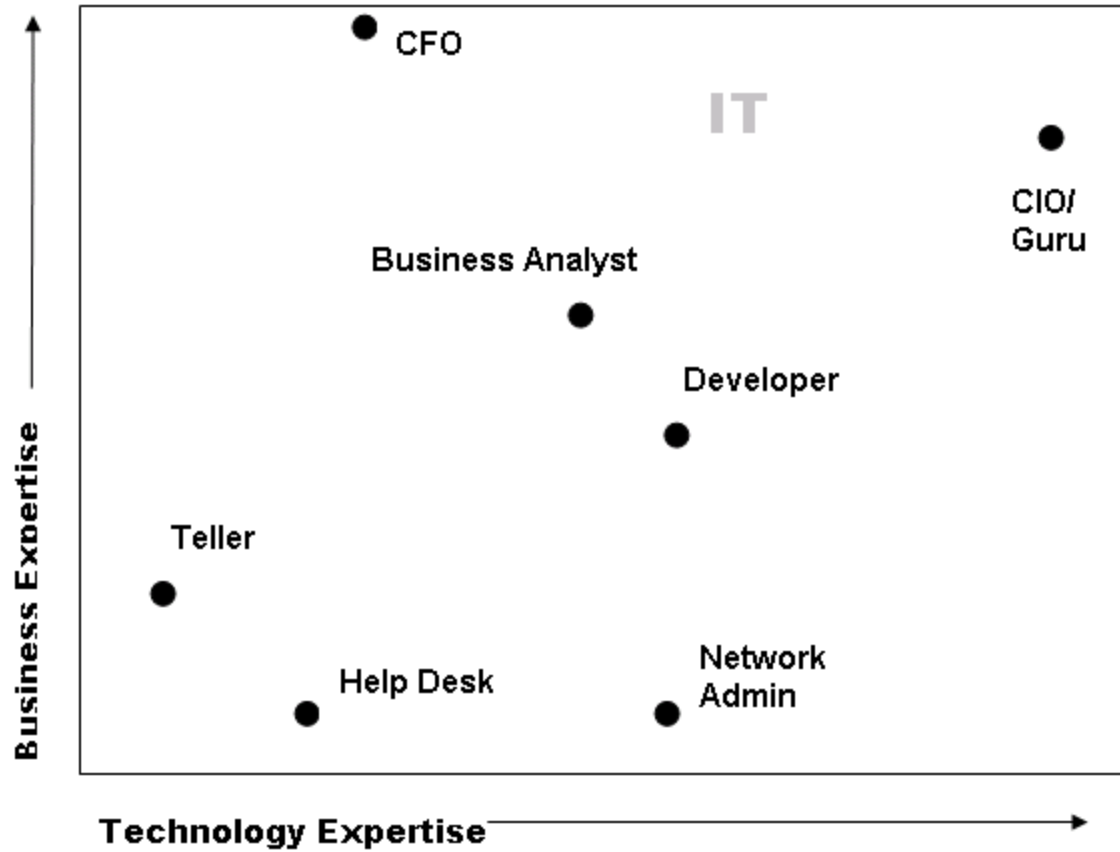
The Changing Face of the IT Worker



The Future "IT" Worker



Future Definition of IT





Not all IT workers are coders, or tech support guys, or project managers

Today, all jobs require some level of IT knowledge

Compare the IT skills required now with the IT skills required 30 years ago for these jobs:

- Accountant
- Civil Engineer
- Change Management
- Financial Analyst



Job openings on careerlink.com (March 17, 2009)

- Help Desk/Tech Support (90)
- Data Entry (85)
- Systems Administration (43)
- Systems Security (20)
- Database Administration (47)
- Programmer (159)
- Project Manager (63)
- Systems Analyst (33)



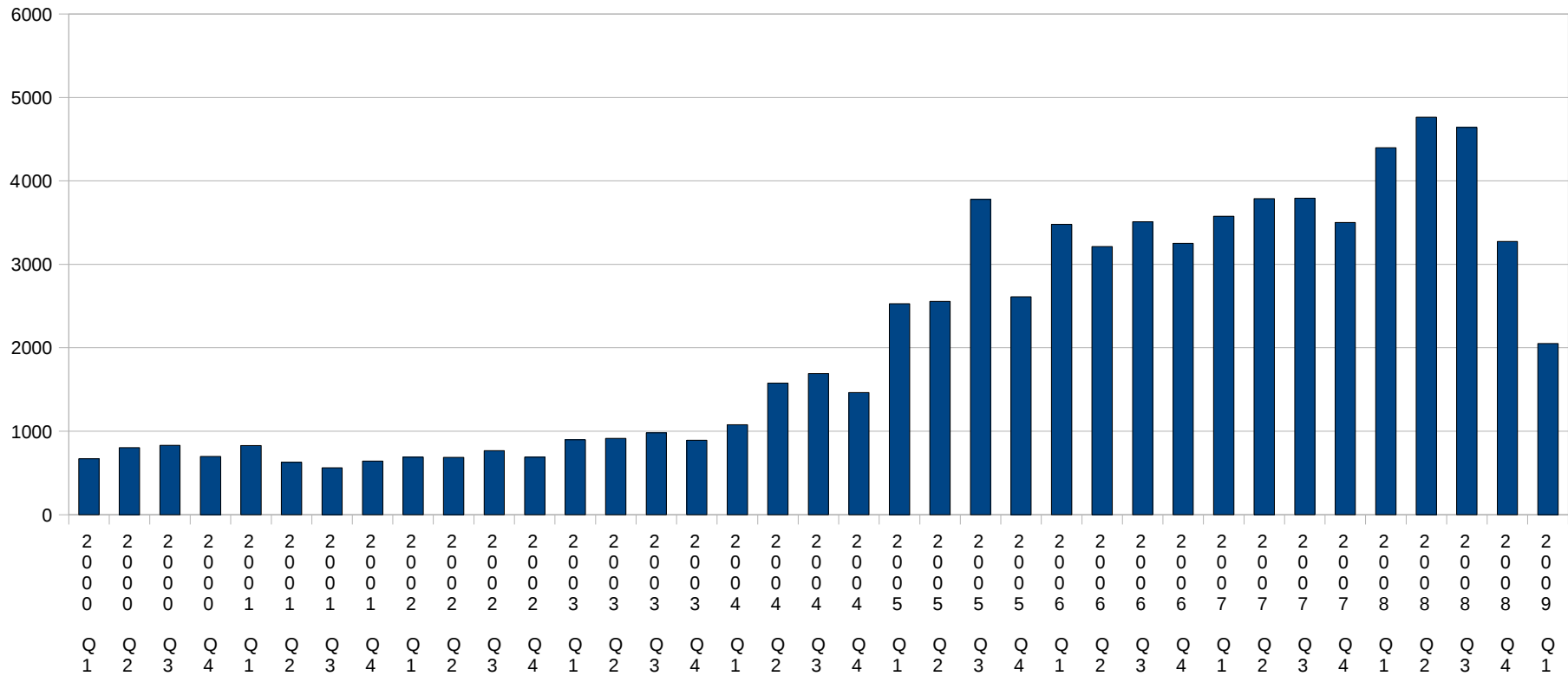
Job openings on careerlink.com (March 17, 2009)

- Finance and Accounting (430)
- Business Analyst (37)
- Financial Analyst (66)
- Architectural Design (36)
- Change Management (23)
- Civil Engineer (21)
- Electrical Engineer (31)
- Product Design (9)
- Research and Development (32)

Traditional IT job trends since Q1 2000



Traditional IT Jobs posted on careerlink.com
by quarter

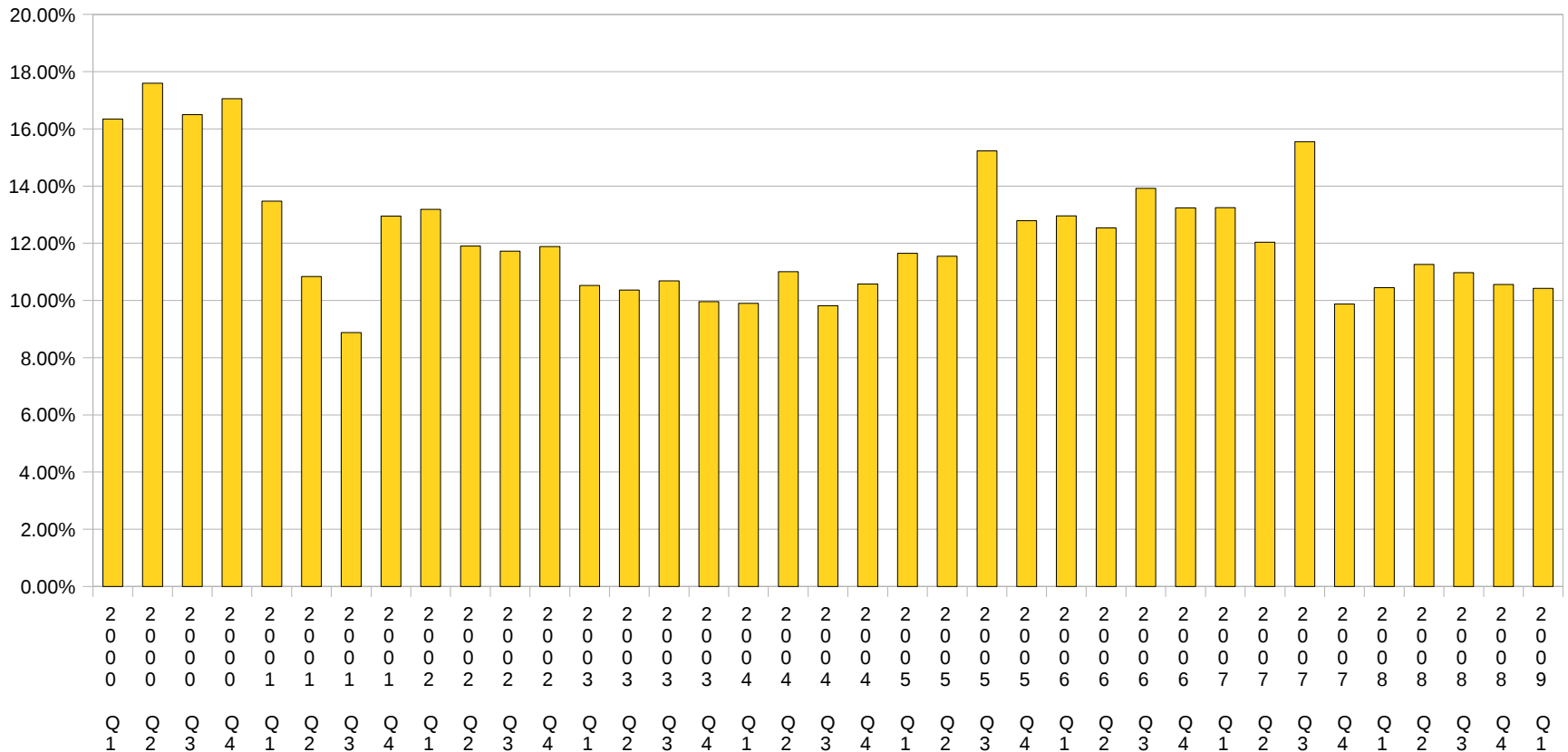


Traditional IT job trends since Q1 2000



Traditional IT Jobs on careerlink.com as a % of total jobs

by quarter

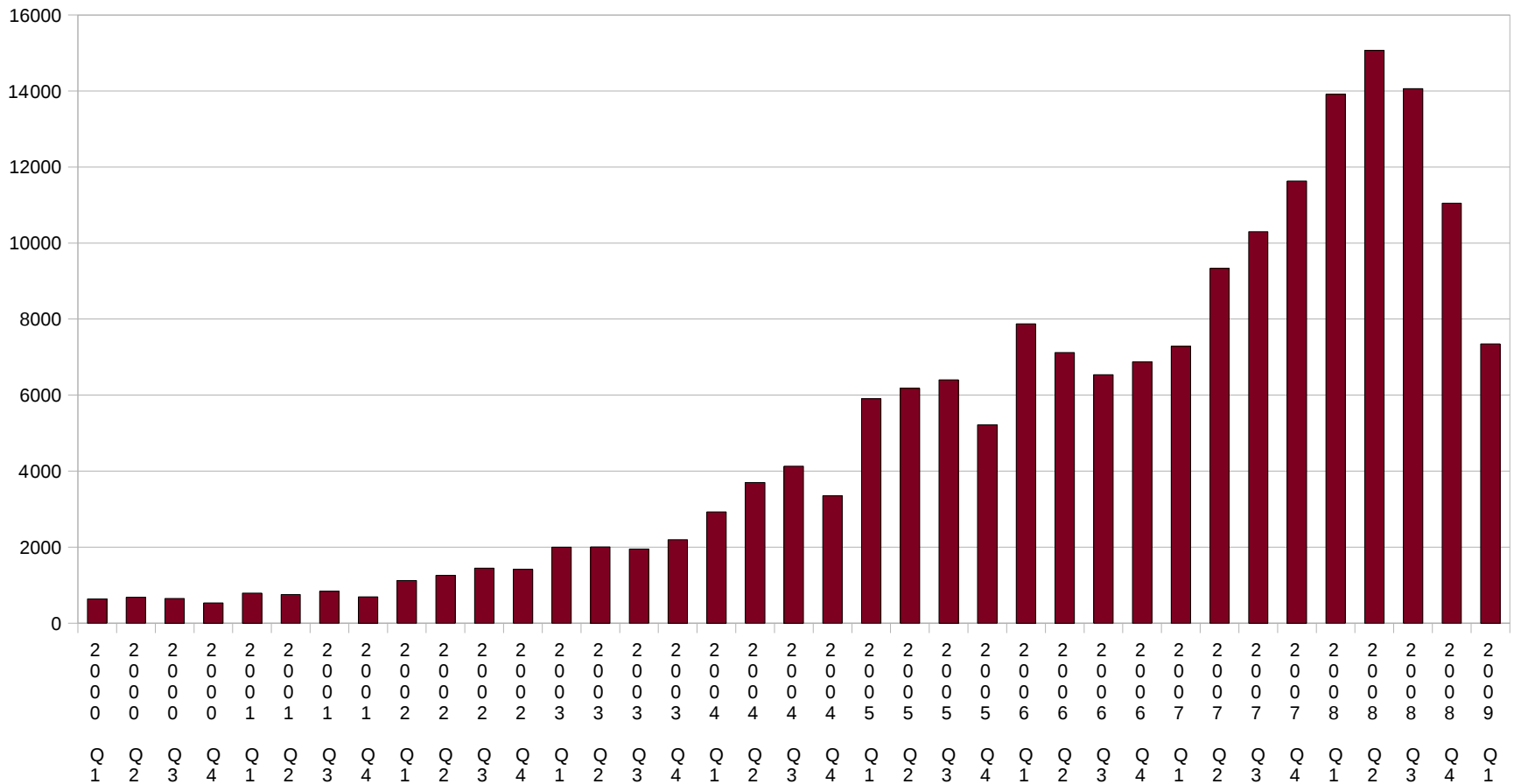


Non-Traditional IT job trends since Q1 2000



Non-Traditional IT jobs on careerlink.com

by quarter

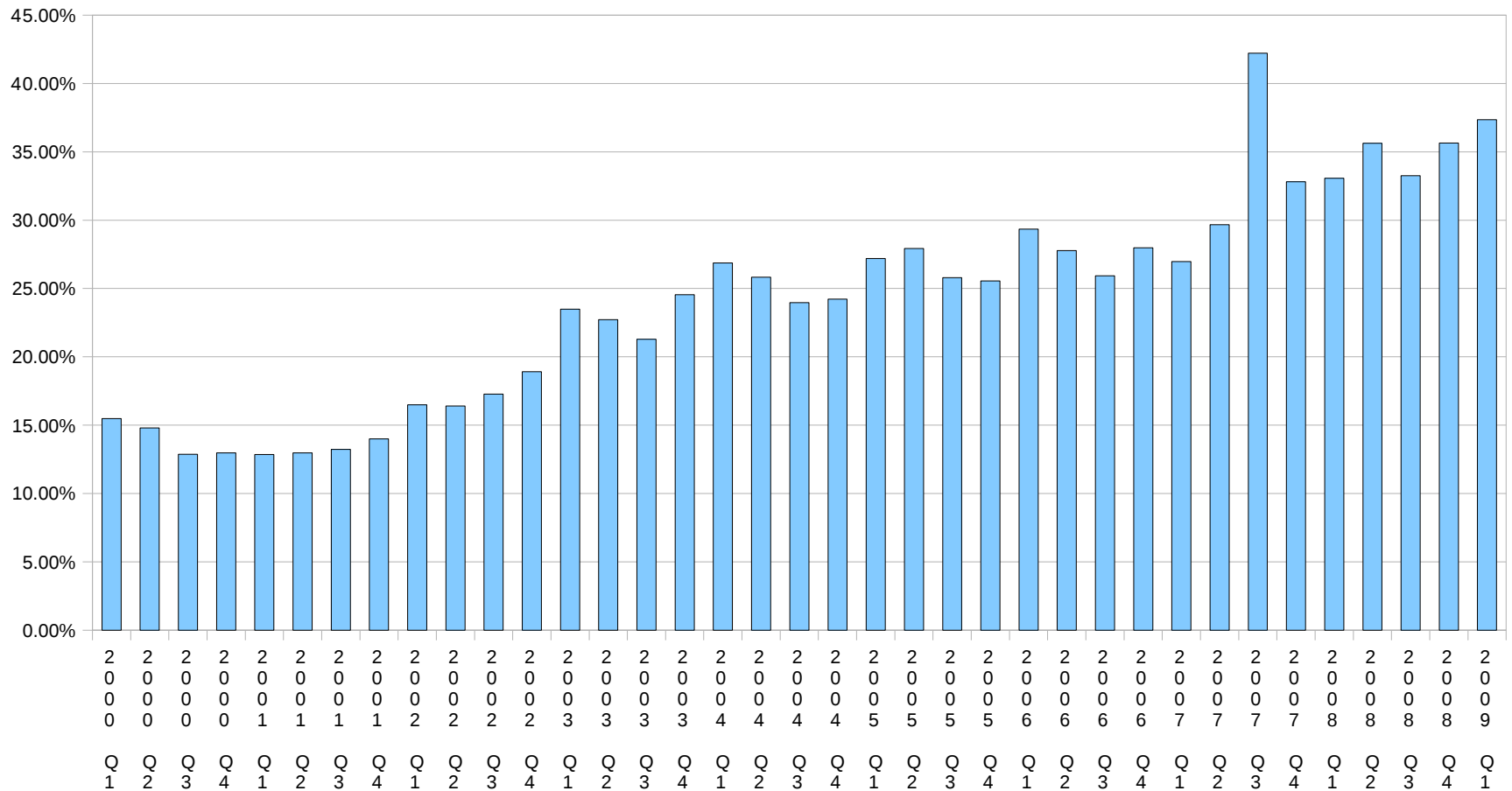


Non-Traditional IT job trends since Q1 2000



Non-Traditional IT Jobs as a % of Total jobs

on careerlink.com by quarter



Why is IT important?



IT has permeated every aspect of business, and most aspects of life (entertainment, communication, etc)

It's not enough to know how to use the tools

You've got to understand the big picture!



How does an employee differentiate themselves from the pack?

How do companies differentiate themselves from the competition?

How does a country take a position as a leader in the global economy?



- Strong IT background
- knowledge of the 'big picture' of a company/department/business process
- problem solver
- knowledge of IT tools to:
 - communicate
 - data mine
 - evaluate
- uses technology and data for decision support

What benefit does this employee bring to my company?

- The job title of the next 20 years
- We are swimming in too much data
- The key is not to find more data, the key is to be able to separate the good data from the bad
 - Data visualization
 - Simulation – the “What If” scenarios
 - Decision support

Is this an “IT” job? Absolutely!

Will it report to the CIO? Not necessarily



- Freakonomics, by Steven D. Levitt and Stephen J. Dubner
 - The science of decision support
 - Data mining large sets of data for often surprising answers

It's not only the ability to identify and use the tools, it's the thinking required to achieve the results

- Linear thinking
- Scientific method
- Outside-the-box (looking sideways at a problem)

“I'm not a programmer – I can't learn C++ just to balance my checkbook!”

Not everyone has to be a programmer. It's much more important to adopt the mindset, and use what tools are comfortable and available to you.

- Spreadsheets
- User-friendly databases (Access, Filemaker Pro, StarBase)
- Text Files
- Google Docs
- ACT!



- Understand the necessity of having a staff that understands IT
 - Training programs
 - Continuing education
 - Alliance with higher ed
 - Internship programs
 - Maintaining the pipeline
- Value the knowledge workers
- “Know Thyself”
 - IBM
 - Sun

Most companies are information companies



- Teach the 'big picture'
 - Technology is a tool to be wielded, not an end unto itself
- Ensure curriculum aligns with business needs
 - This is a two way street
- Integrate technology across all curriculum levels
 - Like businesses are doing!
- Help maintain the pipeline
- Evangelize!



- **Maintain the pipeline**
 - Education of existing Nebraskans (starting as young as kindergarten)
 - Continuing education of the workforce
 - Help bring people back to Nebraska
 - Help bring new people to Nebraska
 - Sponsor technology events like the upcoming Infotec conference
- **Evangelize!**
 - Spread the word not only about technology, but why Nebraska is a great place to be



- Help us!
 - Spread the word about opportunities in IT
 - Make sure people (especially kids) know it's not just computer programming or tech support
 - Apply IT in new and interesting ways

Evangelize!



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