



PREPARING STUDENTS FOR A NEW WORLD OF WORK IN THE 21ST CENTURY



PART I of III

PART I: FIVE REALITIES OF WORK IN THE 21ST CENTURY

A Series for K-12 Educational Administrators to Use with their Teams and Stakeholders

By Will Richardson and Rob Mancabelli

Preparing Students For A New World Of Work In The 21st Century

Part I: Five Realities of Work in the 21st Century

Part II: Literacies for a New World of Work

Part III: Shifting Practice for a New World of Work

This three-part series by Will Richardson and Rob Mancabelli is written for school administrators to drive meaningful conversations about schools in the 21st century with building-level and district-level teams, boards of education, parents and other community members. It's intended to be a thought-provoking, resource-filled starting point for discussing the evolving world of work in the 21st century and how our schools need to evolve to prepare students for these new realities.

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A QUICK QUIZ

Before we start, here's a quick quiz to see where you're at in your understanding of the world of work in 2020:

1. **Short Answer:** By 2020, what percentage of workers will be self-employed?
2. **True/False:** The majority of your students in 2020 will still land jobs with benefits like healthcare, life insurance, and pensions.
3. **Essay:** Explain the impact of various software and robotic technologies on the job pool over the next seven years.
4. **Multiple Choice:** The average commuting time for a majority of our students a decade from now will be (a) More than 15 miles (b) Between 1 and 15 miles (c) Less than 50 feet.
5. **Essay:** Explain the importance of a resume (digital or analog) to getting hired for a job in the future.

Read on to see how you did.



PART I: FIVE REALITIES OF WORK IN THE 21ST CENTURY

Here's the one thing we can safely predict about the future world of work for the students currently in our classrooms—it will look very little like the world of work we're preparing them for today.

In short, that's because schools were not constructed to meet the realities of today's modern learners and workers. Schools were built for a time when access to knowledge, information and teachers was scarce, restricted to what we could find in our local libraries and communities. But with the advent of the Web and our growing abundant access to all of those things, the form and function of schools is now in question as the needs of our students begin to shift in some dramatic, important ways.

WELCOME TO 21ST CENTURY EXPECTATIONS

To be blunt, a 20th century education no longer cuts it in a world where rapid automation shifts the types of skills that are valued in the workforce each year and where the ability to work virtually means we're competing with passionate, highly-skilled, very motivated people from around

the world. As our workplaces evolve, our approach to preparing our students for the 21st century must change as well, and a deep understanding of the challenges and opportunities that lie ahead is the only way to make that happen.

So, welcome to this series on the future (and, in many cases, present) of work. In the first of this three-part series, we will take a look at the factors that are creating rapid and radical changes in the way we think about work and the workplace. We'll also summarize the best thinking about what experts feel the future job market may become. In later reports, we will look at new skills and literacies required to succeed in the future job market, and the opportunities and challenges for schools to rethink their approach to student learning to best serve students faced with this new world of work.

And one last point—we know that education is not simply about job readiness. The purpose of this series is not to argue that changes in the world of work are the only reason that schools should change. In fact, we've co-authored an entire book, *Personal Learning Networks*, that makes an argument for many of these changes purely from the standpoint of the evolution of learning. However, each year administrators besiege

“If you think you're finished, you're finished. In today's job market, everyone needs to be a work in progress.”

Reid Hoffman, Co-founder of LinkedIn



us with the question, “How can I start a discussion about these shifts?”

We think that “work” is an ideal place to start. No question, the key driver to the major shifts in the workplace in general is the explosion of the Internet, specifically the Web. **Two and one-half billion people have become connected online in just under two decades, a number that is expected to double in the next five years.**

While the social and educational aspects of these connections are important, the ability to collaborate with others and easily share professional expertise online is turning thinking about traditional employment on its head. Suddenly, competition for individual jobs has gone global; “one in a million” now only gets an applicant through the first round of interviews.

Below are five of the most important new realities stemming from this change.

REALITY #1: THE RISE OF SELF-EMPLOYMENT

With a growing number of skilled professionals shopping their wares online (many of them from disadvantaged, highly motivated markets), businesses now have access to an enormous pool of

contractors and freelancers vying for jobs large and small. In the U.S. alone, one survey¹ suggests that **by the end of this decade, over half of workers will be self-employed.** And most of those will find (and be found by) their clients via “the cloud.”²

This means that the most successful workers in the future will be those who are used to thinking and acting entrepreneurially. Princeton University professor Anne-Marie Slaughter suggests that a winning strategy for the future of work³ is to be able to “design your own profession and convince employers that you are exactly what they need.” Or, as *The New York Times* columnist Thomas Friedman’s recent column declared, “Need a job? Invent it.”⁴

REALITY #2: RAPID JOB-SWITCHING

Additionally, **traditional expectations of long-term, full-time employment complete with healthcare, life insurance and pension are quickly being rewritten.**

To be clear—we’re not saying the 40-year job is gone; we’re saying the 4-year job is. In fact, according to the most recent available data from the Bureau of Labor Statistics, the average

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U.S. worker in 2013 now stays at a job for 4.4 years⁵, but this current generation of employees, often known as the Millennial generation (born between 1977-1997), expects to stay at their jobs even less time than that—only three years⁶, according to the Future Workplace “Multiple Generations @ Work” survey.

This means that the average worker will have potentially 15 to 20 jobs over the course of his or her lifetime.

REALITY #3: THE RISE OF THE ROBOTS

Another impact on the future of work is that **technology is rapidly shifting and, in some cases, replacing many blue and, increasingly, white collar jobs.** For example, according to the *Financial Times*⁷, in just the last six years, the U.S. has lost almost 2 million clerical jobs, many at the expense of computer automation. That trend is quickly expanding into other areas. As *The New York Times* reported last summer⁸, the future holds a fast ramp up of robots that are “far more adept than those now commonly used by automakers and other heavy manufacturers.” These robots will continue to take the place of hundreds of thousands of skilled workers and positions which, in

many cases, required a college degree.

While these jobs are eliminated, others are replacing them, mostly in fields like technology, medicine and design. This rapid shift has caused the Bureau of Labor Statistics to predict a worker shortage in 2018 because people will not have learned the skills that are in the highest demand. When interviewed, Andrew McAfee, a researcher from MIT who studies the ways that information technology (IT) affects business, commented that he would teach kids “Things that computers don’t appear to be very good at.”

This shift is summed up by⁹ Marc Andreessen, the inventor of Netscape (the first popular Internet browser): “The spread of computers and the Internet will put jobs in two categories: People who tell computers what to do, and people who are told by computers what to do.”

REALITY #4: WORK GOES MOBILE

Regardless of the kind of work that our students will be doing, technology will play an integral role in most every aspect. Increasingly, work will be mobile, with more and more workers working from home¹⁰ or wherever they may find themselves with an

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Marc Andreessen
Inventor of Netscape



Internet connection. New “cloud based” technologies like Google Docs, Dropbox and Slideshare, and real-time video conferencing tools like Google Hangouts and Skype are just the first set of tools to support collaboration and sharing in the virtual workplace. New synchronous and asynchronous tools are being developed every week.

And interestingly, more and more, our students will connect and do work through the personal devices that they own.

REALITY #5: THE EMPLOYEE AS BRAND

Finally, the way that our students find work will change as well. For many, jobs will come not through answering an ad but through being found online by companies looking for specific skills. According to Canada’s *The Globe and Mail*, potential employers are more and more moving toward Web searches and the digital portfolios¹¹ that individuals are creating on sites like LinkedIn. As one recruiter noted, candidates have to be participating in online social media sites in order to get a leg up. “You might miss out on an awesome job because people won’t find you,” she said.

And as *The Wall Street Journal* notes¹², increasingly Twitter is

becoming a “new job board” and the new resume. All in all, the content that our students create and share online is becoming the new CV, not quite the way we thought of attracting employers in the past.

PART II

Preparing for this transformation in the world of work will require a different set of skills. Part two of this series will describe the shift in the types of skills required to land (and keep) a job in the 21st century, laying the groundwork for Part III of the series, which describes how schools can deliver those skills.

“Regardless of the kind of work that our students will be doing, technology will play an integral role in most every aspect.”

ABOUT THE AUTHORS

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