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.

CONTENTS

Intro: Shifting Practice for a New World of Work.............................. 3
Create a Network.............................................................................. 4
Create a Footprint ........................................................................... 5
Make With Technology .................................................................... 6
Entrepreneurial Opportunities .......................................................... 7
In Conclusion...................................................................................... 8
About the Authors ........................................................................... 9
Contact BrightBytes ....................................................................... 9
Resources.......................................................................................... 10
For our students to be successful in what’s shaping up to be a decidedly different future of work, we’re going to have to begin to think differently about how we prepare them in our classrooms. In Part 1 of this three-part series, we took a look at the five new realities that we’re facing when it comes to work. Part 2 then explored the new literacies and mindsets that workers of the future will have to develop in order to succeed. In this final part of the series, we explore some ways in which we can rethink our curriculum and classroom practice to better prepare our students.

While we could no doubt make dozens of different points of emphasis in our discussion of change in the classroom, we’ve chosen to focus on four areas that we think will be most effective in this work: helping students create a global network, helping them create a positive digital footprint, an emphasis on making with computers, and an emphasis on entrepreneurship and entrepreneurial thinking.
CREATE A NETWORK

When people hear the word “network” these days, most think of the social type, the worlds of Facebook and Instagram and others where the primary interactions are with our friends and acquaintances. But in the context of preparing for a world of work where self-employment and rapid job switching are on the rise, online networks aren’t just about friendships, they’re about learning. We’ve written extensively in other spaces about the need for building learning networks, connections with others from all parts of the world who share our interests or needs and are willing to become our teachers and mentors, a role we play for them as well. If our students are not able to continually learn in globally connected spaces, they will not keep up with those who can.

From a workplace standpoint, however, these connections are equally important. While LinkedIn is the premier example of a site that focuses on making connections in a work context, being able to find and meet people with whom you may do important work is now a required literacy. Moving forward, that will require an extensive network that reaches far beyond the people we know in our face-to-face worlds.

Teaching students about networks can start at an early age. A great example of helping kids become acclimated to the basics of global connections is Kathy Cassidy’s first grade classroom in Moose Jaw, Canada. Kathy, who is extremely well connected online herself, uses tools like Twitter and Skype to give her students opportunities to interact with others from around the world on a regular basis. In a series of videos on Kathy’s YouTube page, her students talk about how they’re learning to read and write with other classrooms on Twitter, and how they use Skype to connect to experts they can learn from. (Links to examples of Kathy’s work are included on page 10.)

For the seven and eight-year-olds in her classrooms, Kathy mediates their interactions with the world carefully. But as kids get older, they can begin to take more ownership over the networks they build and engage in. By

“The ability to apply network skills is the foundation of future work.”

Oivallus Report, Confederation of Finnish Industries ¹
middle school, many students find and connect with professional mentors to help guide their learning, and in a growing number of classrooms, students are connecting with others to collaborate on real work projects. In these ways, students get firsthand experience in interacting with others online in ways that develop a required “network literacy” for later on.

By the time they reach high school, there’s no question that students need to understand the potentials of sites like LinkedIn and Elance in terms of presenting themselves to a potential employer. In fact, many teens are now constructing their online resumes on LinkedIn and making professional connections to other members in their areas of expertise and/or interest. These types of networked sites can be a huge asset in creating work opportunities down the road.

Ask yourself, how do we assess the quality of networks that students have built and the skills they’ve learned to build them in the future?

CREATE A FOOTPRINT

While networking is more focused on finding people with whom to connect, the flipside is being “findable” to others who may be looking for your skills or services. To that end, it’s now imperative that we help students create an impressive, positive digital footprint. In fact, we’d go so far as to suggest that a focus of schools should be to make sure every graduate is “Googled well” under their full names on graduation day.

What does that mean, exactly? It means that we acknowledge that most of our students are engaging in footprint building on social media sites without us. And it means that we understand that one of the consequences of living in a ubiquitously connected, transparent world is that with each tweet or Facebook post or Instagram upload, we’re building our online resumes. Like it or not, our students are going to be searched for over and over again, and we’re convinced many of those instances will be by those looking to employ or hire them. (It’s rare to find a school these days that doesn’t do a
“Computing—the act of using a computer to make things programs, novels, art, video, robots—is the game changer.”
Gary Stager, Author, Invent to Learn

Google search of prospective teacher candidates as a standard part of the interview process.)
So, the question becomes, how are we giving our students opportunities to create real, beautiful, high-quality, world-changing work for real audiences that’s published to the world with their full names on it? Right now, more often than not some of our students are doing that without our guidance or assistance. Take, for example, 13-year-old Sylvia Todd, otherwise known as Super Awesome Sylvia of YouTube fame. Sylvia has created dozens of videos that teach viewers about science concepts, jewelry making, circuitry, and an amazing array of other topics. Her videos have been watched millions of times, and her work even got her an invite to do a TEDx talk last year. Search for Sylvia on Google and you’ll find an impressive portfolio of work that we think would impress almost every employer. More than most, she has created a unique brand for herself, one that will surely benefit her down the road. Most kids in our schools, however, don’t have such a presence online. But they could... if we helped them. The Web affords the ability for students to do real work for real audiences that live in the real world. Opportunities to do so exist in almost every classroom, whether it’s writing and publishing books, making videos, podcasts and digital stories, creating and maintaining a blog or a photo stream, or developing a portfolio of art and music.

MAKE WITH TECHNOLOGY
One of the most interesting developments in education in the past few years has been the Maker Movement, the idea that technology is more than just a productivity tool, but, instead, that it is material with which we can create new and interesting things and solve problems. Much of that is due to an explosion of small, physical computing devices, increasingly inexpensive 3-D printers, and accessible formats for programming computers to create and solve problems. The confluence of these three developments carries some profound implications for the way we think about classrooms and,
“If you want to graduate with a job, then you better brush up your entrepreneurship skills today—your future depends on it.”
Dan Schawbel, Author, *Promote Yourself*  

importantly, the skills and dispositions students will need for the new world of work.

The “movement” itself is taking the form of hugely popular “Maker Faires” around the country where innovators of all ages display their latest creations and inventions and give workshops and demonstrations to teach others. Some of the inventions are just for fun; t-shirts that light up when your heart beats or bananas that are turned into musical instruments. (Really.) But more than that, “making” is about using increasingly ubiquitous technologies in innovative ways to solve problems.

Schools are catching on to the “Maker” wave. Almost every school now offers some type of programming course or experience, whether that be a more formal study of a language like Java or an opportunity to write code with Scratch, an online program developed by MIT.

Increasingly, employers are seeking a programmer’s mindset, marked by an ability to plan forward, to prototype and fail rapidly toward a solution, and to work in concert with others. While most now argue for some ability to write code, what’s most important is the thinking process that “making” requires.

But programming is just the start. Many schools are now building FAB (fabrication) Labs or Maker Spaces in their schools and integrating the maker ethos into the curriculum. Pam Moran, superintendent of Albemarle (VA) Schools is leading the way. As Pam writes, “Our children are moving back through these experiences to the natural learning that’s fueled America’s inventors, patent-makers, backyard mechanics, studio artists, NASA engineers, and skyscraper designers and builders.”

**ENTREPRENEURIAL OPPORTUNITIES**

Finally, with a growing realization that many if not most of our students will end up becoming independent contractors, freelancers, and consultants, more and more schools are beginning to provide opportunities for students to think and act entrepreneurially in the classroom. And while some schools are taking
the route of offering specific classes in entrepreneurship, others are simply embedding it into the entire curriculum.

Take Springside Chestnut Hill Academy in Philadelphia for example. Over the last eight years the school has created a “Center of Entrepreneurial Leadership” which integrates seven strands throughout the Pre-K to 12 curriculum: The Art of Communication, Engineering/New Media, Entrepreneurship, Ethics, Global Immersion, Leadership, and Statistics. (See sch.org/CEL for more info.) In the entrepreneur strand specifically, students learn from first hand opportunities to work with local entrepreneurs and also interact with a wide cross section of artists, scientists, and film makers as well as those involved in technology startups. And they get practical experience as well. In middle school, for instance, students raise chickens and sell eggs locally in order to provide microfinance grants to other entrepreneurs from around the world at Kiva.org.

Entrepreneurship can take other forms, however, as in running a business and taking a class at the same time. “School House Graphic Products” is a student-run graphic sign company that’s a combination of industrial arts and business classes in Arnold (NE) High School. The experience gives students the opportunity to be designers, managers, artists, or technicians depending on their area of interest. Students can even earn college credit for the experience. (See bit.ly/shgraphics for more.)

IN CONCLUSION

Taken together, these four areas of emphasis will move students a long way down the path to making sense of the work landscape they’re going to have to deal with. It’s becoming increasingly obvious to us and to many others that traditional thinking about preparing for, finding, and remaining in “a job” is simply not serving students in what is an increasingly complex modern world of work. We hope this series has spurred your thinking and seeded some conversations around change within your schools, districts, and communities.
ABOUT THE AUTHORS

Will Richardson
A parent of two teen-agers, Will Richardson has spent the last dozen years developing an international reputation as a leading thinker, speaker, and writer about the intersection of social online learning networks and education. His latest book, *Why School? How Education Must Change When Learning and Information are Everywhere*, is the top selling TED book ever, and is based on his 2012 TEDx Talk in Melbourne, AU. He is the CLO of Modern Learner Media, a company dedicated to changing the global conversation around education reform.

@WillRich45

Rob Mancabelli
Rob is a mission-driven educator, fascinating speaker, and inspiring author on educational innovation. He’s the co-author of the award-winning book *Personal Learning Networks* (2011) and he writes for leading education magazines. Rob is the Founder and CEO of BrightBytes, a research organization that improves the way the world learns through the use of data.

@RobMancabelli

CONTACT BRIGHTBYTES
To learn more about BrightBytes, please contact us:

490 2nd Street Suite 302
San Francisco, CA 94107
1.877.433.4036
Info@BrightBytes.net
www.BrightBytes.net
@BrightBytes
RESOURCES

KATHY CASSIDY LINKS:
Classroom Blog: http://www.mscassidysclass.edublogs.org/
Personal Blog: http://www.kathycassidy.com/