

Rebooting Canada's Communications Legislation

A conference to examine changes to Canada's broadcasting and communications legislation

Ottawa, Canada

May22-23, 2015

Session 6: It's our culture, and it's a job – employment issues in Canada's communications

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My remarks today are about the future of work and working and can be divided into three broad areas:

1. Low growth in most economies around the world. Structural or cyclical?
2. Information and communication technology (ICT) is transformative and its application is disrupting economies everywhere. ICT is leading to increased productivity in some areas even while employment is constant or falling.
3. There is a profound change in the workforce: the rise of the temporary or micro temp worker: The Uberization of the workforce.

The conference organizers have asked to consider the following:

Should Parliament encourage employment opportunities in the content and carriage sector, or rely on the market to allocate jobs efficiently? Are legislative amendments required to ensure that Canadians have

employment opportunities in the country's communications media?

Well a long time ago and in a totally different context US Senator Barry Goldwater said “you can’t legislate morality”. I would borrow this sentiment and say today to this conference “you can try to legislate employment” but technology and market forces would only defeat such attempts and trying to legislate employment could possibly lead to more harm than good.

There are a number of broad trends at work that should be considered

1. Economies in developed nations are in a state of slow growth, despite the efforts of central banks to spur growth. A speech by former U.S. Secretary of the Treasury Larry Summers at a recent IMF conference provoked considerable media debate.

Summers’s basic message was clear and depressing at the same time: The western world faces a long period of low growth, a “secular stagnation” similar to the lost decades in Japan. ⁱ

Economists on the left and on the right and in between all have different reasons why our economies are in a slow growth mode and all have different prescriptions as to how to fix things. Some say it is because of a rise in global saving, or because slow population growth in developed economies makes investment less attractive, or because technologically led productivity growth can occur with fewer workers, leading to constant wages and reduced demand in the economy.

Suffice it to say that for this conference and for this topic, prospects don’t look good for employment in general and in particular for employment in telecomm and broadcasting.

We are living through the development and implementation of a transformative technology. I am referring to information and communication technology which I will refer to as ICT. This would include all hardware, software, networks, satellite communication and related telephony and, of course, the internet.

As this technology has developed and moved through society in bits and pieces we have been surprised and sometimes worried about the implications for individuals and society. And we worry and wonder about the future of work.

ICT is a general purpose technology. And it is a disruptive technology. Some previous gpts were the wheel, steam engine, internal combustion engine, and electricity. ICT falls into this category. Its impact will be as profound as previous gpts.

As a general purpose technology ICT can be compared to electricity. It is not electricity itself which transformed society but the myriad of apps which only work because of electricity. From the toaster to vacuum cleaner to the computer and television and radio. All depend on electricity. So too is it becoming clear that we depend more and more on ICT in one form or another to power and activate the apps that are so much a part of everyday life: smart phones, cell phones, satellite mapping, the web, almost all travel information, etc. Banking information, etc. And of course Google.

“Technology changes exponentially, but social, economic and legal systems change incrementally”

The Canadian economy and in fact all economies are experiencing the wrenching change of ICT on work and working. Automation has been going on for some time. It is displacing workers in all sectors of the economy. Increases in productivity are taking place even as employment is constant or even falling. ICT is a disruptive technology. It creates winners in one sector of the economy even as it upsets others. As a society we are barely coming to terms with what a digital economy looks like and how the technology with its productivity advances can be widely shared in the broader society.

While this disruptive technology has given birth to the Googles and Facebooks it has also brought down some giants of the past.

For many years, Kodak Film was one of the nation’s leading companies, with 145,000 employees worldwide and annual sales of \$19 billion. Today, Kodak is a much smaller company. Digital cameras don’t need film, and Kodak is focusing instead on exploiting thousands of

the patents it holds. There is a profound physical and cultural transformation taking place at Kodak company headquarters in Rochester, New York.

What was Kodak with its many employees is now a business park. It is called Eastman Business Park. Kodak took down 40 buildings and about six million square feet of space to create the business park. Eastman Business Park used to be called Kodak Park. A space that housed tens of thousands of employees working there. There are still over 6,500 people at the business park. The difference is, three-quarters of those people are non-Kodak workers today. At one time, there were 30,000 people manufacturing film. Now there are 300 people manufacturing film.

Other companies have set up shop in the space. A diverse array of companies. But not Kodak. Where Kodak used to make cameras there are now companies making sauce and salsa.

As one senior Kodak executive said “My last five years at Kodak, I used to manage the decline: sell buildings, cut costs. It was depressing. It’s just a shadow of its former self.”

But he added “We have 7,000 patents. We make our own inks. We make our own toners. We also make the fastest commercial printing ink jet machines in the world. “ There will still be Kodak hiring at the site, but it will be limited to very specialized products. As one analyst put it: the real job growth at the Eastman Park will likely come from other companies coming in utilizing the capability here.

An ex-Kodak executive said “I jumped ship and came over to the food and beverage industry, unlike anything I had done before. Food and beverages, it’s — you know, it’s the one thing that I like about it the most is people got to eat. It won’t be replaced by digital technology. And that, I like.”ⁱⁱ

2. The continued application of ICT is changing and disrupting all established sectors. ICT is labor saving, capital saving and energy saving. Anyway we look at it such a technological development is a “game changer” It is changing the quantity of work needed in many sectors of the economy and is changing the quality of worker needed. In some cases highly skilled techies are needed and in other cases less skilled are needed to operate smart machines. (the smarter the machine, the less skilled the worker)

What are the employment prospects in telecomm and broadcasting?

There is lots of public information available on revenues in telecommunications and broadcasting. These revenues are available in microscopic detail. Less available however is information on trends in employment in both these industries.

But there are clues as to what is going on vis a vis employment.

It seems that US data is more easily available so lets consider one US Bureau of Labor Statistics bulletin from a few years ago. ⁱⁱⁱ

Despite increasing demand for telecommunications services, employment in the telecommunications industry is expected to decline. Jobs will arise from the need to replace a significant number of workers who are expected to retire in the coming decade. With rapid technological changes in telecommunications, those with up-to-date technical skills will have the best job opportunities.

Employment in the telecommunications industry is expected to decline by 9 percent over the decade 2008 to 2018, compared with 11 percent growth for all industries combined. **Despite an increasing demand for wireless Internet, cable television, and mobile technologies, productivity gains will result in a reduced demand for workers. As telecommunications infrastructure becomes more reliable, for example, fewer workers will be needed to make repairs.**

The industry will change as households demand more services such as wireless Internet, video-on-demand, and mobile- and Internet-based telephone services. Businesses will demand faster and more advanced telecommunications systems to improve communication and electronic commerce. These services are being supplied increasingly by all the competing sectors of the industry, as the lines become blurred between cable and satellite TV, and between wireless and wired phone and Internet systems. **Employment, however, is projected to decline in both the wired and wireless sectors.**

Wireless companies will continue to introduce new technologies and services and provide faster Internet access. **Employment, however, is expected to decline by 1 percent over the projection period.** Demand will decrease for installation, maintenance, and repair occupations as the rate of expansion of the wireless infrastructure slows, because upgrading existing equipment is less labor-intensive than installing new equipment.

Employment in wired telecommunications carriers is expected to decline by 11 percent. Fiber optic cables, which are more reliable than their copper-wire counterparts, are expected to account for an increasing portion of the wired infrastructure. This will result in fewer installation, maintenance, and repair workers, as malfunctions occur less frequently.

Job openings in telecommunications will be as a result of the growing number of retirements and the continuing need for skilled workers.^{iv}

Other projections seem to be consistent with this one.

Collegegrad.com is a website offering advice to college grads on career prospects. It seems a bit more optimistic but in large part mirrors the BLS findings. Here are some of its findings.^v

Industry consolidation and strong price competition among telecommunications firms will decrease employment as companies try to reduce their costs. **Additionally, technological improvements, such as high-speed wireless data transmission, fiber optic lines, and advanced switching equipment, have massively increased the data transmission**

capacity of telecommunications networks, and resulted in much higher productivity that will further reduce employment.

Telecommunications equipment also is more reliable and requires less monitoring. Still with a growing number of retirements and need for skilled workers there will be job opportunities.

The industry will expand even with lower employment as people and businesses will demand ever wider ranges of telecommunications services.

Wireless carriers will compete directly with the residential wired services, providing increasingly reliable cellular communications and increasingly faster Internet service. Therefore, the lines between cable and satellite TV, wireless, and wireline telephone systems will become blurred.

Employment growth will differ among the various occupations in the telecommunications industry, largely as a result of technological change. Employment of communications equipment operators is expected to decline due to increasing automation. Computer voice recognition technology lessens the need for central office operators, as customers can obtain help with long-distance calls from automated systems. This technology, which also enables callers to request numbers from a computer instead of a person, is expected to reduce the number of directory assistance operators. The numbers of these workers will drop further as more customers use automated directory assistance resources on the Internet.

Line installers and repairers are expected to decrease due to more reliable equipment and expanding applications of wireless technology. Telecomm equipment installers and repairers are expected to decline because of newer, more reliable technologies will reduce equipment maintenance.

Employment of these workers also will be limited by the tendency of many companies to contract out maintenance and installation work to specialized contractors that are part of the construction or retail industries.

Looking at broadcasting, the BLS notes that employment of broadcast and

sound engineering technicians is projected to grow 9 percent from 2012 to 2022, about as fast as the average for all occupations. Growth is expected to stem from businesses, schools, and radio and television stations seeking new equipment to improve their audio and video capabilities. ^{vi}

Employment of reporters, correspondents, and broadcast news analysts is projected to decline 13 percent from 2012 to 2022. Declining advertising revenue in radio, newspapers, and television will negatively impact the employment growth for these occupations.^{vii}

Electrical and electronics engineers in broadcasting is projected to grow 4 percent from 2012 to 2022. Job growth is expected because of electrical and electronics engineers' versatility in developing and applying emerging technologies.^{viii}

The Canadian Association of Broadcasters is a bit more optimistic about employment. **As a trade association optimism is part of their DNA.** Here is an example:

“The Canadian broadcasting and production sectors are *growth* industries in the Canadian economy, providing employment for thousands of people in dozens of occupations that require a wide range of education, training and skill sets.”

Given this continuing growth and diversification of jobs, the broadcasting industry requires a deep pool of skill and talent. At the same time, the industry has expressed concern about the potential future shortage of skilled workers.^{ix}

Finally I turn to a third broad topic dealing with employment in the broader economy and one that also affects the telecomm and broadcast sectors.

3. We are moving into an era of the temp worker. More specifically we can call it the micro temp worker. Or **I would call it the “Uberization of the work force”** With smart phones the just in time worker has taken on new

meaning. Workers can slice and dice their work days into an hour here and an hour there. In an era of declining trade union power the days of benefits, defined benefit pensions, etc., the idea of a career in an established sector or company is fading away. This is not good news. But it seems to be the trend we are living with at this time. While some would say that trend is not destiny, I would argue that it is useful to look at trends anyhow.

It seems that the quality of jobs in Canada has been declining pretty much since the late 1980's, ratcheting down after each recession. Part-time positions are increasing "much faster" than full-time ones, self-employment increasing faster than paid employment, and lower-paid full-time jobs increasing faster than higher-paying ones.

This trend is apparently structural and not cyclical. It can't be changed with traditional monetary policy such as changing interest rates or printing money.

It's not just a perception: Temporary work really is growing at a faster pace than permanent positions.

- The number of temporary workers in Canada hit a record two million last year, according to Statistics Canada. That amounts to 13.6 per cent of the work force compared with 11.3 per cent in 1997, when such record-keeping began.
- And since the recession, temporary work has grown at more than triple the pace than permanent employment – up 14.2 per cent for temp work between 2009 and 2012, versus 3.8 per cent for permanent workers.
- What many employers would call flexible work, others would call precarious. A joint study by McMaster University and the United Way in February of this year found four in 10 people in the Greater Toronto

and Hamilton region are in some degree of precarious work (defined as a state of employment that lacks security or benefits) – and that this type of employment has risen by nearly 50 per cent in the past two decades. It also found that people in insecure work tend to earn 46-per-cent less than those in secure positions, and rarely get benefits.^x

Robert Reich the former Secretary of Labor in the Clinton administration notes that nearly one in every five working Americans is in a part time job. Many are consultants, freelancers or independent contractors. The portion of workers with any pension connected to their jobs has fallen from just over half in 1979 to under 35 percent today. A survey carried out in 2014 showed that 40 percent of Americans working felt that their employers would reduce benefits even more.

Notes Reich, the current situation is also a consequence of the demise of labor unions. (20 percent of workers unionized in 1983 compared to just over 11 percent in 2013) Fifty years ago, when General Motors was the largest employer in America, the typical GM worker earned \$35 an hour in today's dollars. By 2014, America's largest employer was Walmart, and the typical entry-level Walmart worker earned about \$9 an hour.

This does not mean the typical GM employee a half-century ago was “worth” four times what the typical Walmart employee in 2014 was worth.

The GM worker was not better educated or motivated than the Walmart worker. The real difference was that GM workers a half-century ago had a strong union behind them that summoned the collective bargaining power of all autoworkers to get a substantial share of company revenues for its members. **And because more than a third of workers across America belonged to a labor union, the bargains those unions struck with employers raised the wages and benefits of non-unionized workers as well. Non-union firms knew they would be unionized if they did not come close to matching the union contracts.**^{xi}

US data show that 2.3 million people held temporary jobs in March 2011, up from a low in mid-2009 of 1.7 million, as companies seek to satisfy customer demand without making long-term commitments to worker salary and benefits.

“Employers know that the economy could change at any time,” says one analyst, “so by hiring somebody temporarily, companies have staffing for their peak needs but can let them go when they are no longer needed.”

Temporary workers are often paid less than full-time workers, with few if any benefits. Such as health insurance or retirement benefits, or be protected by labor laws.

One analyst notes that the disappearance of benefits and job security are part of a larger trend in which work has become increasingly informal. Temporary jobs are the tip of the iceberg of ways that work has become more casual.^{xii}

The technology is transformative. It is changing the workplace in profound ways. **The just in time inventory that was pioneered by manufacturers using sophisticated algorithms which determined optimum scheduling has now become part of the today’s workplace. We are witnessing the just in time worker, both blue collar worker and white collar worker.**

We can call up a car, a worker, a doctor, a nurse using our smart phone, email address and our credit card. Businesses are also doing this to meet sudden labour needs.

The conveniences that technology start-ups are bringing us—instant access to cars, groceries, and homes; help cleaning our kitchens—might make our lives simpler, but the same can’t be said for a large portion of their employees. Companies like Uber, Lyft, TaskRabbit and Homejoy are using technology to provide the ultimate in the temp worker.. And while it might seem like a great deal for users, it’s also creating a new, precarious branch of the labor force.

Working conditions for Uber and Lyft drivers are not quite what the companies say.

This new world of just in time micro work smartphone-hailed cars often have a driver juggling a collection of devices that summon him or her to here or there. An iPad , an iPhone and yet another phone in the driver's hand is common. One machine is for Lyft, the other for Uber, the last for the car service that likely rents them their car.

It seems that there is no such thing as a pure Lyft or Uber driver. Rather than working for a single taxi company, these drivers are hustling between several services that each provides them with just a portion of an income and no stability whatsoever.

The structure has its benefits, chief among them allowing workers to set their own hours. But the statement that this sort of approach has liberated blue-collar workers is misleading. It is often said that they are their own entrepreneurs. In reality they are not entrepreneurs in the classical sense. They are contract workers whose "entrepreneurial" endeavor depends on the whims of the companies they are working for.

Lyft and Uber both market themselves in part as a way for amateur drivers to take on taxi work as a kind of wholesome, self-driven small business, like the postindustrial equivalent of selling vegetables out of a home garden.

The contract sector of the workforce is growing faster than ever. The lack of more regular employment means more workers are having to create cash flow for themselves.

"The on-demand economy means getting what you want when you want it, yes, but turn the equation around and it also means that workers only get paid when demand is high enough. Efficient, perhaps, but sustainable or beneficial to the social fabric? Unlikely."^{xiii}

Many thought that the computer would take over much of the production needed in the economy and would create an era of leisure for many. It appears that it is just the opposite for the many who need money to meet their daily living needs. While some in society are getting much richer because of the technology, many who can no longer find quality jobs anywhere are settling for whatever they can find. For some it is OK and can provide flexibility, for others they are running as fast they can earning money in jobs that provide no security, no benefits and no future.

We seem to be witnessing the Uberization of the workforce.

Uberization is a trend that is marked by start-ups using email, charge cards and smartphones

And it is spreading to the professions as well. It seems to be disrupting long held practices in for example medicine. There is now an Uber for doctor housecalls.^{xiv}

New smartphone apps can deliver doctors to your doorstep.

[Heal is a smartphone app](#) similar to the on-demand car service Uber, but instead of a car, a doctor shows up at your door. Users download the app and then type in a few details such as address and the reason for the visit. After adding a credit card and a request for a family doctor or a pediatrician, the physician arrives in 20 to 60 minutes for a flat fee of \$99.

Heal doctors are on call from 8 a.m. to 8 p.m., seven days a week. Heal has a roster of doctors who have affiliations with respected hospitals.

Its theme “We’re bringing back old-school techniques with new-school technology,” .

A similar [service called Pager](#) is available in New York City. [Go2Nurse](#) brings a nurse to homes in Chicago and Milwaukee, and includes at-home pregnancy care, help with newborns, eldercare and specialized care for Alzheimer’s and Parkinson’s patients.. [Curbside Care](#) offers house calls in the Philadelphia area from nurse practitioners and physicians.

Or for those who want a medical consultation but do not need a doctor or nurse in their house, a number of new apps create a virtual house call. Nearly one million people will see a physician via webcam in 2015.

Where this is going for doctors and lawyers and other professionals is still to be determined. And for the moment there are benefits for both users and providers.

But for workers at the lower end of the wage and training scale the outcomes are quite different.

TaskRabbit originally pitched its offering to the home market. On its website it says:

Describe Your Task ; Choose a Tasker ; Live Smarter

We'll do what you don't want to...

- clean your house, run your errands, clean your oven, build your IKEA furniture, hang your shelves

...so you can do what you love.

- hang out with your kids, read a good book, go for a bike ride, catch up with friends, write your novel ^{xv}

Over the last year or so, a handful of startups have begun helping companies find workers to complete their odd jobs, too. One, called Zaarly, addresses the staffing needs of small businesses. And TaskRabbit [has started catering](#) to businesses as well.¹ **Though the efforts vary in their particulars, the basic model is to make it frighteningly easy for companies to outsource work.** If the model catches on, most companies may one day employ only a small cadre of full-timers, which they beef up with freelancers as the need arises.

Perhaps the most ambitious worker-on-demand startup to date is a company called Wonolo (short for “Work. Now. Locally”). The idea is

for companies to post job listings to an online platform the same way people in need of a house-cleaner post a job to TaskRabbit. After it's posted, one of the app's users (known as "Wonoloers," which the app vets extensively) can claim the job and report to work as soon as a few minutes or hours.

Suppose, for example, that an online retailer suddenly realizes it's short a few order-fulfillment jockeys—the people who roam warehouses and locate the goods that need to be boxed and shipped. The retailer can post the jobs on Wonolo and bulk up its workforce that same day.^{xvi}

Wonolo affords workers some real advantages—some of which Uber and TaskRabbit share. For example, like those other services, Wonolo provides unemployed or underemployed workers with a reasonably steady source of income, something the our economy still isn't doing for too many people. It can also give workers much-needed flexibility. While Wonolo expected to draw users overwhelmingly in their late teens and 20s, many are stay-at-home parents with a few free hours in between dropping off kids and picking them up.

But if you throw out your back while on a Wonolo, you're out of luck. Wonolo doesn't provide workers comp insurance, and the Wonolo [terms of service agreement](#) suggests it would be near impossible to obtain compensation from an employer.

Wonoloers have no bargaining power. There is usually a far larger supply of workers than there are jobs on his platform. "Our job fill rate [for companies] is now over 90 percent," says one of Wonolo's owners. **"Whenever companies post a job, it's filled within seconds or minutes."**

The company seems to straddle that fine line between 21st-century self-actualization and a 19th-century [reserve army of unemployed](#). Come to think of it, maybe that's a fair description of the entire sharing economy.

If platforms like Wonolo catch on, companies may begin to restructure their entire workforce to take advantage of them. **Companies historically built their staffs to handle their peak loads. Supermarkets and department stores kept enough workers on payroll to handle the daily rush; manufacturers sized their labor pool to the peak production season. The downside was that these companies were overstaffed during off-peak times. The upside was that their employees got stable work and income.**

But, in recent years, companies have become increasingly sophisticated at figuring out when demand will peak, and staffing up only for those moments. The proliferation of apps like Wonolo will only accelerate that process. One of Wonolo's early customers were hotels who had to deal with housekeeping staff who called in sick and rooms needed to be made up in a hurry.

Wonolo would like to expand into white-collar fields like nursing (say, checking vital signs at a hospital after a natural disaster) and law (proof-reading legal documents at three in the morning). And there's no reason why similar apps couldn't connect employers with workers who perform more intellectually demanding tasks. Already there's a site called [HourlyNerd](#), which helps companies hire MBAs for discrete jobs using the TaskRabbit model. It's not hard to see how such platforms could one day affect tens of millions of people.

"If that comes to pass, the effect will be to shift risk onto workers making work less secure and less stable"—particularly for the lowest-skilled workers, who have the least leverage. ^{xvii}

ⁱ <http://www.economist.com/blogs/buttonwood/2014/11/secular-stagnation>

ⁱⁱ <http://www.pbs.org/newshour/bb/picturing-kodaks-transformation-digital-age/>

ⁱⁱⁱ *Bureau of Labor Statistics, U.S. Department of Labor, Career Guide to Industries, 2010-11 Edition Telecommunciation Industry Job Outlook.*

^{iv} Bureau of Labor Statistics, U.S. Department of Labor, *Career Guide to Industries, 2010-11 Edition*

^v <https://collegegrad.com/industries/infor05>

^{vi} <http://www.bls.gov/ooh/media-and-communication/broadcast-and-sound-engineering-technicians.htm>

^{vii} <http://www.bls.gov/ooh/media-and-communication/reporters-correspondents-and-broadcast-news-analysts.htm>

^{viii} <http://www.bls.gov/ooh/architecture-and-engineering/electrical-and-electronics-engineers.htm>

^{ix} http://www.cab-acr.ca/english/social/diversity/disabilities/pwd_employment.htm

^x <http://www.theglobeandmail.com/report-on-business/economy/jobs/canadas-shift-to-a-nation-of-temporary-workers/article11721139/>

^{xi} <http://robertreich.org/post/117835755110>

^{xii} <http://fortune.com/2011/05/05/the-rise-of-the-permanently-temporary-worker/>

^{xiii} <http://www.psmag.com/business-economics/uber-lyft-homejoy-dangerous-rise-temporary-technology-worker-91270>

^{xiv} well.blogs.nytimes.com/2015/05/05/an-uber-for-doctor-housecalls

^{xv} <https://www.taskrabbit.com/>

^{xvi} <http://wonolo.com/>

^{xvii} <http://www.newrepublic.com/article/120378/wonolo-temp-worker-app-shows-scary-future-sharing-economy>

Presentation Slide

The Future of Work and Working

1. Low Growth in Global Economies

- **state of slow growth in developed nations (structural vs. cyclical?)**
- **poor prospects for employment in general, and in telecom**
- **technology changes exponential; social/legal/economic = incremental**

2. ICT is a Transformative and Disruptive Technology

- **ICT is labour, capital and energy saving**
- **telecom will expand but employment expected to decline**
- **contracting out; automation; move from copper to fibre, etc.**

3. The 'Uberization' of the Workforce

- **declining power of trade unions**
- **increasing part-time, informal and/or temporary employment**
- **decreasing benefits and pensions; no job stability or security**
- **economic risk transferred to workers**

Can government legislate employment?

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