

The Sharing Economy - What's in it for Business?

Entrepreneur Martin Varsavsky founded the company Fon in 2006 with the express purpose of providing free global Wi-Fi by encouraging people to share their home Wi-Fi connections. Fon (www.fon.com) is now the largest Wi-Fi network in the world with over 12 million hot spots in more than 100 countries. The sharing economy is relatively new and is inspired by our oldest human instincts of cooperation and sharing. It maximizes underutilised assets by building sharing communities around them, and in some cases turning consumers into service providers.

While the internet fostered much of the early sharing economy through open source software, information and gaming there has been a transition to the sharing of finances and hard assets. This sharing economy has the potential to reboot business across most economic categories. *Forbes* magazine estimated that the revenues for this sector could top \$3.5 billion in 2013, with growth exceeding 25%. **It is easily underestimated and can be highly disruptive.** A 2010 UC Berkley transportation study estimated that one shared car can displace 9-13 owned cars. These efficiencies have significant implications to savings, financing, insurance, infrastructure planning, and the entire automobile industry.



The sharing economy is not problem free, and raises issues with the legalities relating to the ownership of assets. One example is peer to peer holiday lodging which is gnawing away at the hotel business and impacting property prices. In New York City a man rented out his apartment for three days on a peer to peer lodging site called Airbnb (www.airbnb.com), and was later charged with \$2,400.00 for violating the city's illegal hotel law. Fon ran into similar roadblocks with their business when telecommunications

companies said Fon's platform of free Wi-Fi went against their terms of service. **Businesses participating in the sharing economy can fail if they are unable to convince established players that they can add value to their companies.** The pioneering audio mp3 file sharing website Napster (www.Napster.com) fought record labels fiercely over copyright infringement. They were eventually forced to cease operations and sell remnants of the business to Roxio who changed it to an online music store and sold it to Best Buy.

Corporations are participating in the sharing economy. Google is sharing Android advertising revenue with Android smartphone manufacturers and the carriers that sell them. In March 2013 Ford launched the Ford2Go program in Germany which allows customers to rent cars and service from their local dealers. Renault-Nissan have joined forces with Daimler AG to share parts and develop components between their two companies. Wal-Mart Stores Inc. is considering launching a program which compensates its bricks-and-mortar customers for delivering packages to its online customers. THEGREENXCHANGE (www.greenxchange.cc) is a collaboration of a number of partner corporations and organizations including Nike which accelerate sustainable innovation through sharing of intellectual property. Open Source Ecology (www.opensourceecology.org) is an interesting collaboration of farmers and engineers sharing complete drawings and all details for the construction of machinery and its modular component parts in the Global Village Construction Set.

Here are some tips for successful collaboration strategy within the sharing economy from the Council of Supply Chain Management Professionals:

- **Collaborate in areas where you have a solid footing.**
- **Turn win-lose situations into win-win opportunities with the right benefit sharing model.**
- **Select partners based on capability, strategic goals, and value potential.**
- **Invest in the right infrastructure and people.**
- **Establish a robust, joint performance-management system.**
- **Collaborate for the long term.**

It is prudent to stay informed and aware of shifts in the sharing economy. It presents great new opportunities for some businesses and the risk of extinction to others.

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Unmanned Aerial Vehicles Entering the Private and Public Sector

Unmanned aerial vehicles (UAVs) also known as drones have been slow to get off the ground since their first use by the Austrians in 1849 to bomb Venice. Minor successive advancements were made during World War I, World War II and the Vietnam War. With more recent significant investment and advancement in the miniaturization of technology Israel, South Africa and the United States were the first of many countries to advance these vehicles for sustained, effective remote sensing and specialized combat roles. In 2002 an unmanned Predator drone firing an air to air Stinger missile was the first UAV to shoot down a manned MIG jet fighter, forever removing any doubt that UAVs could play a significant role in the Military.

The increasing cost and high consumption of fuel by conventional military air fleets has led many nations to re-evaluate their investment in UAV technology. **The cost per flight hour of a drone can be as low as 5% that of a fighter jet.** Range and flight time of drones has been increasing rapidly and these vehicles provide unparalleled ability to spy. Size and payload vary from insect sized drones to those that can carry payloads in excess of 900 kilograms. Boeing's hydrogen fueled Phantom Eye with its 150 foot wing span can cruise at 65,000 feet for four days. The estimated investment in drones by the US military between 2007 and 2013 was \$22 billion and more than 11,000 drones now make up half of the U.S. military air fleet. 76 other countries are investing in drone capability including Canada with an estimated \$1 billion investment.

While initial investment and innovation has been driven by military requirements and budgets, more than a thousand companies are now in the UAV business and drones are finding more applications in the private & public sector including:

- **Agriculture:** Closely monitor crops detecting crop health through near-infrared sensors allowing farmers to react quickly and improve management and yield through targeted dispensing of water, pesticides and/or nutrients.
- **Mines:** Accurately measure site conditions, inspect pit walls, calculate quantities, and do 3D mapping.
- **Construction:** Check on projects and compare actual progress to projected, as well as assist with coordinating material logistics on the job site.
- **Infrastructure Inspection:** Provide the ability to sense in three dimensions, take thermal readings, and detect metal strain.
- **Wildlife Research:** Monitor and track wildlife providing new insight into animal behaviours and protecting them from poachers.
- **Prospecting:** Mineral and oil and gas exploration is easier with drones allowing field prospectors to

confirm and expand their insight. Magnetometers on drones can detect ferrous metals and gravitational fields.

- **Storm and Fire Tracking:** Provide new insight into the behaviour and trajectory of fires, hurricanes and tornadoes reducing risk when dealing with these dangerous situations.
- **Emergency Response:** Provide a quick means to gather information and navigate debris.
- **Environmental Monitoring:** Monitor hard to reach areas or contaminated areas where human health is at risk. Infrared sensors can provide details on plant and environmental health.
- **Logistics:** Amazon Inc. recently announced that they are researching the feasibility of distributing products with UAVs.
- **Search and Rescue:** Discover the locations of lost persons easily with thermal imaging. This is especially useful at night and in challenging terrain.
- **Border & Coastline Patrol:** Monitor vast areas of coastline and border cost effectively.



While there are still regulatory hurdles and privacy concerns to be overcome, UAVs will provide a significant paradigm shift to remote sensing and numerous business applications many of which have yet to be developed. President Obama signed a law in February 2012 directing the Federal Aviation Administration to make American Airspace wide open to drones by September 2015. **A March 2013 report by the Privacy Commissioner of Canada reviewed drones and the current rules governing drones in Canada. It also reviewed privacy concerns and it clearly states that the privacy laws do apply to information about citizens collected either by public or private sector drones in Canada.** http://www.priv.gc.ca/information/research-recherche/2013/drones_201303_e.asp

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