BIXI Bike Sharing

February 27, 2013

Webinar Transcript

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Tools of Change

Landmark Designation

The program described in this case study was designated in 2011.

Designation as a Landmark (best practice) case study through our peer selection process recognizes programs and social marketing approaches considered to be among the most successful in the world. They are nominated both by our peer-selection panels and by Tools of Change staff, and are then scored by the selection panels based on impact, innovation, replicability and adaptability.

The panel that designated this program consisted of:

- Ben Campbell and Lisa Goodlet, Transport Canada
- Mark Dessauer, Active Living by Design
- Ryan Lanyon, Metrolinx
- Nathalie Lapointe, Federation of Canadian Municipalities
- Jacky Kennedy, Green Communities Canada
- Lorenzo Mele, Town of Markham
- Geoff Noxon, Noxon Associates
- Chuck Wilsker, U.S. Telework Coalition
- JoAnn Woodhall, Translink

This transcript covers a webinar held on Wednesday, February 27, 2013. Additional materials about this program can be found at: http://webinars.cullbridge.com/course/enrol.php?id=660.

Introduction by Jay Kassirer

This is the first of four Landmark case studies this year on changing transportation behaviors. These peer-reviewed Landmark case studies recognize programs and social marketing approaches considered to be among the most successful worldwide based on impact, innovation, replicability and adaptability. This is our last year's panel (panelists listed on p. 2). You can see people from a wide range of organizations, including both 'on the ground' program-delivery organizations as well as cutting-edge organizations that advise, support and evaluate those who deliver the programs.

I also would like to acknowledge the generous support of those people who've helped promote this webinar and because this particular webinar is focused on cycling, I do want to mention a new organization in Canada, Canada Bikes, www.canadabikes.org. It's the new national voice for commuter, touring and recreational cycling in Canada.

Let's turn our attention to today's webinar on BIXI Bike Sharing. There are a number of strengths that the peer panel mentioned when they selected this case study. One is that this is a turnkey type operation. They're doing it in a number of cities in Canada and elsewhere. It's relatively inexpensive and easily replicable across many different locations and cultures. And it has already had a major impact - according to some members of our panel - on the positioning of cycling in North America by making it more chic and attractive. What they've done here is to take a repetitive behaviour and made it more fascinating, more attractive and more appealing.

The panel wanted to know how the bike system is being used to complement the transit system. You'll see today how BIXI designed its system to help get more people to and from transit more easily.

You'll also see an example of how to make a program sustainable without necessarily getting a lot of funding from government or other sources. Panelists also wanted more information on use of the service by tourists and others who don't live near the bike stations. You'll see all of these issues addressed in today's webinar.

I'm going to mention a few more things you might want to look for in this webinar. In terms of our standard social marketing planning stages, you'll see some good formative research. Nicolas Blain is one of the primary analysts in developing this so he is the right person to ask if you have questions about how they got the information in order to decide how to target their audience and those kinds of things, what the barriers were, how to overcome them. You'll see they've done very careful targeting and audience segmentation. They have also carefully developed partners, including transit, and we'll see how that plays out in their strategy.

They have great evaluation and piloting. Some of the metrics are built in, such as using real-time bicycle use data. They know at any time where the bikes are, how far they've been going and a number of other things, but they supplement that with surveys to get opinions and intentions as well. I already mentioned the idea of making it more

appealing. They make cycling more fun and trendy. Making it fun is a key part of "product" considerations - the first of the four "Ps" [slide: product, place, price, promotion].

They worked hard at making the product right. They worked hard at overcoming specific barriers to make it more easy and convenient to cycle for short distances, including easy access and drop off of the bicycles and the intermodal connections. That would be "place" in the three Ps. There's easy payment with a credit card; you can have a membership, but it's not required. You just put your card in and take the bike out. All the rest is calculated for you and it's priced to encourage frequent short trips. So this is the third P, "price." The fourth P is "promotion" and they clearly are good at that as well.

Our speaker today is from BIXI Bike Sharing and PBSC Urban Solutions, Nicolas Blain. Nicolas is a Planning and Development Analyst at PBSC Urban Solutions. He operates the bike sharing network in Montreal, which is the original system implemented by PBSC, as well as the networks in Ottawa and Toronto. He has a degree in urban planning from the University of Montreal and a degree in geographic information systems (GIF). Please join me in welcoming Nicolas Blain.

Nicolas Blain, PBSC Urban Solutions

Thank you. Before we start, can you click on the bottom if you know what a bike sharing system is. Good, everybody knows.

Different cities, but the same challenges. All the cities around the world face the same challenge: more and more people are moving into urban areas and one of the major problems is how we're going to transport everybody.

In 2007, the City of Montreal had a new transportation plan and asked themselves that question. That's when they decided to build their own bike sharing system. They decided to give the mandate for the system to the parking authority of Montreal. Why choose them? Because they already had knowledge in terms of wireless technology, wireless communication, they were already dealing with municipal infrastructure, and they knew how to deal with street furniture. The technology was already there to start building the system.

[Slide] Once the system was implemented, we created PBSC, the Public Bike System Company. The PBSC administration operates the system. PBSC has three main criteria: design, innovation and expertise. Our system was designed by Michel Dallaire, one of the most famous industrial designers worldwide. We tried to be innovative and think outside the box, while building our expertise on how to create a bike sharing system.

[Slide] What makes our system so special? Mainly, it is our bike. First of all, the bike is really safe and sturdy. Personally, I like to compare it to a tank because it's almost indestructible and can go everywhere. It's fast. The bike was designed by Michel Dallaire and you can see the curve of the bike on the picture. It was designed as a

boomerang to represent the main principle of a bike sharing system: you throw it and it will always come back to the same point.

[Slide] The stations are entirely powered by solar energy. Everything's wireless and we have almost no impact on the environment where we locate the stations; we can install a station pretty much anywhere around the city. You just need a hard surface. You can put it on street, since the station is designed to take exactly the same amount of space a car takes on street. You can put it in a main plaza or directly on the sidewalk if you've got enough space. We have plenty of options to develop a system in a city.

BIXI was launched in Montreal in 2009 [slide] and here's one of our great achievements, *TIME* magazine gave us the prize for the 19th Best Innovation of the Year. It was the same year that the Mars Rover was nominated by *TIME* magazine. We've gotten other worldwide recognition as well. The Edison award; the other winners that year were the Nintendo Wii Fit and the iPhone. These are design awards, so they're really important to us because we were, like I said, thinking out of the box when we decided to build that system.

It's now our fifth year with the system. A lot of cities around the world added our system and to give you some quick examples, Montreal's got it, Ottawa/Gatineau, Washington, Boston, Chattanooga, London, Melbourne, and in a couple of months you will see BIXI in New York City. That's going to be one of the biggest bike sharing system worldwide.

I'll give you some examples of Montreal's system, which until New York launches is the biggest bike sharing system in North America. The Montreal network consists of 5,120 bikes, 411 stations in ten boroughs and two cities. Since we launched in 2009, two other cities decided to join the system in Montreal (Westmount and Longueuil on the south shore of the island of Montreal). At the end of the season in 2012, we had calculated 4.4 million trips and reached 40,000 members. Since the launch in 2009, we have more than 13 million trips.

[Slide] How is it working and what's the main impact of the system on the population? Twenty-one thousand trips per day, 27,000 during a sunny day. People are using it for short periods of time and short distances (30 minutes, 1.6 mile/2.1 kilometers) and each bike makes six trips per day. Each day, BIXI users in Montreal travel the entire circumference of the entire planet. What's interesting in Montreal is that people really look at the system as their main mode of transportation; 90% of the 4.4 million trips were used by members, 10% by casual users. By casual users, I mainly mean people who are not members and rent a bike just for a 24-hour or 72-hour period.

BIXI is used as a standard means of transportation at the same level as the bus or subway. [Slide] Here you can see when the users are taking the bikes; mainly, we've got two peak hours, one in the morning, one during the afternoon, similar to vehicle peak hours, so it's a good indicator that people are using the system exactly the way they would use a car, a subway or a bus.

[Slides] To give you a quick example of what we're dealing with every morning during the peak hour, here's a map of our system. The red dots are stations that are mainly full of bikes; the white areas show stations that are almost empty but are ready to receive the bikes during the morning rush hour. In Montreal the key area is the downtown core; pretty much all the attractions in the city can be found there (the financial district, cultural district, the university, huge shopping centres), so it attracts pretty much everybody. You will see that all the trips are concentrated in the morning into the downtown area.

[Slide] At 8:00 you start to see people moving, at 9:00 the downtown area is getting pretty crowded, and by 10:00 a.m. it's totally full. All the stations are pretty much full so that's where the big challenge is for any system around the world. Bike distribution means that you need to empty the stations in the downtown area and bring the bikes back to the local stations to make bikes available to the population there.

[Slide] BIXI is a real alternative because people are combining the usage of the bike with other modes of transportation (bus, subway). For example, they start from their home, take a bike, go to a major bus or subway train stop. We've got stations everywhere to create intermodality. They stop there and they continue their trip by bus or subway. The other interesting thing that we found out with the survey done with our members is that going to work is the main reason people use BIXI. More than 40% of system users use it on a daily basis to go to work.

[Slide] We are the missing link. On this map of Montreal, the major bike lane is in blue. You can also see all the subway stations throughout the city. In red are all the BIXI stations. A station can be almost at the user's door, they can take a bike and connect to anywhere else in the city, including major transportation hubs.

[Slide] Intermodality connectivity as you can see is really important to us because people always combine BIXI with another mean of transportation. That's why it's really important to offer discounts to our members for local transportation. In Montreal, we've got a deal with Communauto (car sharing like ZipCar) and with the Societé de Transport de Montreal (STM), the transit authority in Montreal.

[Slide] BIXI really changed the behavior of the population. Before BIXI, 25% of all bike trips were made to go to work. Two years after BIXI was implemented in the city, it increased to 53%. It's not a huge amount but we have been able to reduce the number of cars on the road by a little bit. Without BIXI, only 3% of users would have used a bike, whereas 14% would have taken a car.

[Slide] Site selection is the key. When you implement a system, you want the site locations near your future members. Throughout the survey we found out who our users were—mainly young adults, aged 25 to 34 with incomes between $30,000 and $40,000 a year. They're white collar and they're regular users of transit. Once you find where those people are living, and in relatively high density, it's a good indicator of where you will find future members and a site to install a station. Last year we received over 800 requests for stations throughout the city; those requests are also a good indicator of where

you should put a station and make it work in order to have the maximum number of people using it.

[Slide] Another important thing is getting in touch with the population. Before starting in 2009, we created a blog, did a lot of surveys, held a contest to find a name (BIXI is a mix of "bicycle" and "taxi"). The important thing is to put people together, to make them understand what a bike sharing system is and what the implications are for them. By knowing what people want, you're able to give them a better service. We created kind of a family spirit between everybody to make sure that the system would be viable.

[Slide] What's the future of the bike sharing system? This graphic [slide] represents the number of bike sharing systems around the world. Between 2002 and 2007, it was pretty low. There were some, mainly in Europe, but after 2007, there was a major turning point with the Paris launch. It exploded exponentially after that. In 2012, we estimate that there are almost 500 operational bike sharing systems in the world and there are tons of requests for proposals for other systems going on. The major bike sharing systems are still in Europe, so there is a huge market in Northern America and in Asia, where city densities are exploding and the population is going up exponentially. The future for bike sharing systems is pretty bright.

Q&A

Q: Do people have to bring their own bike helmets? Is that a concern in any way and how do you deal with that?

Nicolas Blain (NB): In Montreal, there's no helmet law and so it has no implications. We really recommend that people wear a helmet. That's why we made deals with local shops to get bike helmets at a discounted price if you're a BIXI member. It's hard to say for me since we have no impact here and I'm mainly working on the Montreal system, but I know for some cities like Melbourne, or other cities that want a system like Vancouver for example, we have, in development, a helmet vending machine.

Q: How will that work? People will be able to get a helmet for an additional fee and then return it when they bring back the bikes?

NB: Exactly, it will be at the station. You will get an access code and at the same time, when you are taking your bike, you will be able to grab a helmet and once you return the bike, you can put the helmet back in the returning bin of the vending machine.

Q: This relates to theft and vandalism. I understand that if the person does not return the bike in good condition or the helmet isn't returned, then that comes off their credit card?

NB: Exactly.

Q: Do you have any trouble with vandalism or have you done anything to protect the bikes in terms of them just standing there in the stands?

NB: No, vandalism in Montreal is not really a problem. We might find some flat tires or stuff like that, but nothing major. No graffiti at all. Nothing has been destroyed. Our bikes are so sturdy that it's almost impossible. We've got some, a little bit, but really nothing major.

Q: What's the smallest city population using BIXI? Is there a benefit to having a university or a college in the city in order to make it work? Is it important to have a student population as part of it (they may not be using cars as much or don't own cars as much) since they would then contribute a lot to your user base?

NB: The smallest city we've got right now is Ottawa. The system has 25 stations. It's working really well. I think it just needs to find the density to make the stations work. In Montreal, the student population represents around 20% of our members, but in Montreal we are seasonal—we start the season April 15 and end in mid-November.

Q: It's not a year round system?

NB: Not in Montreal because of the snow. Toronto operates 12 months a year, so we're starting to look at them and maybe start in Montreal next year. We're just evaluating that right now. To come back to the student population, yes, it's important, but like I said in Montreal, we operate mainly during the time of year when there is no school, and since people are mainly using the system to go to work, it doesn't change. It's not necessarily important to have a student population since our target group is 25-34 and most of them are already working.

Q: How did you tap into the tourism market?

NB: The tourism market is really important for us. The best example of that is what we did in Ottawa. The first season we only had ten stations; we targeted the main tourist areas, major museums, what's attractive to tourists, and added stations there. We did the same thing in Montreal and those stations are really working well. The users can see that those stations are mainly used by tourists; the stations that are more north into residential areas, 90-95% of the use is by members, so location is the key. You really target the people you want to reach.

Q: How was the system financed and how do you make it sustainable? I thought I saw a slide at one point where you talked about the different streams of revenue coming in.

NB: In Montreal the members and casual users are one of the main financial revenue, we also have three major sponsors, which represent the other half of our revenue. We're not subsidized by the government. It's only membership and usage fees and our sponsors that provide the revenue.

Q: Do you have any comments on what it takes to make something like this sustainable?

NB: Really plan your network well before starting; know who you want to reach and how many members you will get. Really evaluate the potential of the different key areas of the city and you'll be able to make the operation costs sustainable.

Q: In addition to the money coming from those people, you have some streams coming in from other places as well you were saying, some financing from sponsors and so on.

NB: Yes, we have three major sponsors for our bike system in Montreal. We have a telecommunications company, a financial institution and another partner. They sponsor each bike with their logo.

Q: They are recognized on the bike with the logo?

NB: Yes.

Q: I'm in the United States. The program could probably get money from the Federal Highway Administration but they have a "buy America" requirement. Would BIXI qualify for that? Do you know?

NB: PBSC partners with Alta Bicycle Share (http://www.altabicycleshare.com/) in the States. That's what we're doing right now for a city in the United States [Columbus, Ohio], so there's no problem with the buy America clause.

Q: Have you had any cities with liability concerns prior to implementing your program?

NB: Not to my knowledge.

Q: What's the cost to rent? I know it depends on if you have a membership and there's various things, but can you give us a brief overview of the cost structure?

NB: Each city has a different pricing system, but in Montreal if you want to be a year-round member, it costs you $82,50 for trips of 45 minutes. After 45 minutes, you have to pay for extra time. All the pricing are designed to encourage short trips, Point A to Point B. You go to work and that's it. It's not for pleasure but you can use it as a casual user. For example, you put your credit card in the station, it costs you $7 to rent a bike for a 24-hour period, but in 30 minutes increments. After 30 minutes, if you didn't put back the bike, you're gonna pay extra.

Q: How is that impacting the private bike rental companies that might have rented those bikes out otherwise?

NB: Since our system is really made for short trips, I think everybody understands that it's not for tourists. Bike shops rent mainly to tourists, so we promote the bike shop on our own website by pointing them out on a huge map. If you want to rent a bike for more than a whole day, for example, you can go to that specific shop.

Q: Have they seen any impact on their business? Have you seen the number of bike rental companies being impacted since you've been growing in Montreal?

NB: For the bike shops, I have no idea.

Q: What's the biggest challenge implementing the BIXI system in a city? I'm in Quebec City, so the numerous hills could be a problem.

NB: That's interesting. Although it's not like in Quebec City, we have hills here as well. When I was speaking about bike distribution, the first year everybody would come into the downtown area by bike but would not go back home with the bike because of the hills. Now that we're in our fifth season, people now just take the bike and go pretty much everywhere. They got used to it. They learned how to bike in the city and they love it, so there's no physical obstacle or barrier.

Our distribution was harder the first two years because the bikes were staying in the core, so we had to physically move them to other stations. Now, the bikes are being returned by the users. That's really nice to see.

Q: What's the relationship between BIXI International and the Montreal project? You said it started out of Montreal by the city government but then you've been spun off in a sense into an international company. Can you talk a little bit about that?

NB: Basically, the goal at first in Montreal was to finance the project by selling our system, our expertise, throughout the world so that's how Montreal was financed mainly at first.

Q: And now it's a separate company?

NB: We're on the verge of separating everybody.

Q: So the international part of BIXI is being sold off? You're in that process?

NB: Yes.

Q: Are you aware of examples of small cities with a handful of centres that would be candidates for bike stations or hubs who have successfully implemented bike share?

NB: No, I have no idea.

Q: Can you speak about the recommended steps if you're going to develop a program like this, or go through the feasibility of having a BIXI bike-sharing system in your own city?

NB: You have to analyze the population. We developed some mathematical models to evaluate the potential of each city. We are able to see, just by a quick look throughout

our system, how many potential members there are, how many casual users there are. By knowing that, you can plan a system that will be sustainable.

Q: The main thing is that upfront analysis and it sounds like if someone is interested, they should approach you and you would have a system to help them with that?

NB: Yes, for sure, because we've got experience in about 12-15 cities right now so we really know what's going to work, what's not going to work, what to do, and what's the best practice to make the system sustainable.

Q: Is the one BIXI station in Quebec City privately owned and operated?

NB: Yes.

Q: What kind of arrangement do you make with a city for installing the bike stations? Is there a road occupancy permit or a lease or what sort of arrangement?

NB: In Montreal, we are in the process right now of dealing with that. Each year some stations are moving. We have a standard permit for temporary occupancy for each station so we ask for the specific intersection we want to go on and ask for a permit. We have 400 permits before the season starts because we have stations, like I said, on the street but we also have stations in paid parking lots, too, so they gave us the access to those specific areas and even for a station on the sidewalk.

Q: What's the cost for the total infrastructure per bike? In Montreal you've got so many bikes, you've got a total cost, what does that translate to per bike?

NB: Usually we evaluate. Everything is customizable but typically the cost per is between $4,000 and $4,500 for a whole system which includes the station, the docking points, the bikes, etc, but it can vary depending on the specifics for each city.

Q: Do you have any plans to include electric bikes?

NB: In the short term, no. Not in Montreal or anywhere that I'm aware of, but I think everything's coming out, sharing is a new thing so why not?

Q: If money was no concern, what would be the maximum number of bikes that Montreal would currently need?

NB: Right now we're at 5,120 bikes and without any kind of revenue analysis, just to cover the area of Montreal if we want to give access to the bikes to the majority of the population considering that and Montreal is a huge island, we would need between 6,000 and 7,000 bikes.

Q: How do you think BIXI and other vendors are doing keeping up with the rapid expansion of bike sharing in North America? What do you think the future holds for bike sharing? Where do you see this all going?

NB: The future is pretty bright I think. In each city, in my experience, everybody thinks at first that a bike-sharing system is mainly used by tourists and for casual users, but once you discover that people use the system to go to work, it becomes their principle means of transportation. With 20,000 trips per day, that's pretty impressive, so all cities are starting to think it's a low-cost and easy way to implement a new thing. We really are the missing link.

Q: How are most systems funded? What are the main sources of financing and are any completely self-sustaining?

NB: In terms of financing, I would say that the major sources of revenue can be divided in three categories. First, we got subsidies from the city as our main sponsor; second you can be subsidized by government, specific programs that Canadian or American governments provide; and finally you also have the revenues from the users. That's why it's so important to plan the system well because that way you make sure that you're self-sustaining.

Q: Have you found that your target audience has changed since you started the launch?

NB: The early adopters are young adult, working, white collar. But after a while people just realize how fun it is, how easy it is to grab a bike and go to work, so now we can see other group growing. In Montreal, we call them the "golden seniors," which are mainly people 55 plus, older people who are now starting to use the system. We can see a big increase in terms of the memberships coming from them.

Q: Has the cyclist population increased because of the BIXI system in Montreal?

NB: I don't have the numbers with me but the bike modal share in Montreal went way up.

Q: You talked about market research. You've done surveys, you've been looking into some details that aren't from surveys but are data that's available in terms of where people are and what their characteristics are. Can you talk a little bit more about the kind of research methods you've used to get this data that you've based your program on?

NB: We've got two kind of research that we are doing. Each year, at the end of the season, we survey our members to see if they're satisfied, what they want, stuff like that. W also use a GIS (geographic information system) with an external database from Statistics Canada and other sources to see who those members are, what they're doing, what's their lifestyle, etc. That way, we are able to dig into the target group.

Q: Other than the surveys and Statistics Canada, what other sources of data have you used there? Are there other sources that you would recommend to people when they're trying to get this kind of data?

NB: We use a segmentation database to cluster the population that we developed. We also use some databases about family expenditures, but that's mainly it. We bought some cluster databases that was already built too.

Q: What do you wish you had known when you started this system?

NB: Who are users were, that's the main question. After a couple of years of operating, and in all the cities I've worked with, we find that the early adopters are pretty much the same everywhere. You need to target those people first and then after a while, the membership will grow, but throughout the more standard population.

Q: After the launch of your system, what marketing steps and tools did you use to contribute to the success of the program?

NB: Our users are the generation that uses social media a lot, Facebook, Twitter. For Montreal, it's a huge part of the system and the marketing of the system. Everything's going through Facebook, even for changes in the network, announcements or to get direct feedback from our users.

Jay Kassirer: Thank you all for joining us today and thank you so much Nicolas for sharing your experiences with us. I think your approach has made it a lot easier for a lot of people to cycle and we're seeing the impact of that. I hope that's a great lesson for all of us on how we can make repetitive behaviors easier, more fun and more popular.

[End of Webinar]

Note: Two outstanding questions to be answered, post-webinar, by Nicolas Blain.

Q: What was the total cost to build and run the system in Montreal?

A: We do not give any cost about the Montreal system. This information belongs to the city of Montreal and is confidential.

Q: How has cycling modal share in Montreal changed before and since BIXI was implemented?

A: 2001 : 1.2 % 2010 : 2 %