tren 4p19 – environmental heritage

Tourism’s technological transformation:
Digital technology and interpretive tourism

David T. Brown
Department of Tourism and Environment, Brock University
500 Glenridge Avenue, St. Catharines, ON L2S 3A1
dbrown@brocku.ca
the context for this discussion:

interpretive tourism
Interpretation is a communication process, designed to reveal meanings and relationships of our cultural and natural heritage, through involvement with objects, artifacts, landscapes and sites.

- Interpretation Canada, 1976
digital transformation of interpretive tourism

- Digital technologies can facilitate interpretation in previously unimagined ways.
- Digital technologies can also influence / change / “distort” interpretation in previously unimagined ways.
digital transformation of interpretive tourism

- of academic/scholarly/theoretical interest due to educational opportunities, questions of authenticity, historical accuracy, etc.

- of practical interest: local identity; ‘sense of place’; civic pride
Digital transformation of interpretive tourism

- of academic/scholarly/theoretical interest due to educational opportunities, questions of authenticity, historical accuracy, etc.

- of practical interest: local identity; ‘sense of place’; civic pride → ‘destination branding’, economic development opportunities through interpretive tourism and ‘edutainment’
tourism assets

- the tangible and intangible resources and features which attract visitors to a given destination

- tourism assets may be enhanced considerably through interpretation
- “the power of stories”
tourism assets

tangible resources:

- venues
- destinations
- businesses
- organizations
- people
tourism assets

intangible resources:

- stories
- live music / performance
- skills / crafts
- oral history
- behaviour
- language
tourism assets

...also:

- tools or procedures which encourage connections amongst these resources and people

(e.g., guidebooks, websites, directories)
many places have unique tourism assets that are of potential interest to residents and visitors
However...

- most people lack the knowledge, research skills, patience and time required to find them
- conventional interpretive resources, tourism brochures and static websites do not meet this need very well
- interpretive opportunities and tourism revenue are lost as a result
tourism assets: facilitating access & engagement

- **physical access and engagement:** location, wayfinding, itinerary building

- **intellectual access and engagement:** awareness, knowledge, interpretation
tourism assets: facilitating access & engagement

- may be done using traditional means: storytelling, tour guiding, mentorship – (informal and formal)
- may be done employing technology as an extension of our human aptitude - e.g.
  - “low-tech”: guidebooks, paper maps
  - “high-tech”: multimedia, digital devices, GPS, virtual reality
using digital technology to facilitate access and engagement

...what technologies are useful?
using digital technology to facilitate access and engagement

transformation digital technologies:
- personal computers
- cell phones
- digital media players
- digital cameras and recorders
- Internet (wired, wifi)
- mobile transmission (wifi, 3/4G, satellite)
- smartphones / wearables
- integrated GPS

locational technologies
using digital technology to facilitate access and engagement

what kind of information do we need to support these technologies?

➢ wish list of information ‘modules’ required to use these technologies effectively
wish list of features for a digital interpretive tourism platform

- dynamic database
- point of interest / resource profiles
- people profiles
- geospatial information and mapping capabilities
- integrated e-commerce capabilities

CASE STUDY:

identifying and promoting niche tourism in Niagara’s greenbelt
niagara falls
niagara falls
“Niagara syndrome”:

- many visitors (12 million+ per year)
- focus on mass tourism destinations (Niagara Falls and immediate vicinity; casinos; shopping)
- 85% short stays (average 15 hours!!)
- primarily US origin (60-70%; but declining since 9/11 -> Ontario / Canadian tourist segment growing)
- “Been there, done that” attitude
- poor knowledge of ‘the other Niagara’ amongst visitors
- transportation a problem (poor infrastructure and poor knowledge)
“Niagara syndrome”:

- The challenge:
  introduce and attract visitors to ‘the other Niagara’

- One stellar asset to do so:
  the Niagara Greenbelt
• has some ‘natural’ boundaries;
• is a credible conceptual entity;
• ‘brand’ may be quite important in influencing tourism decisions;
• is reasonably well delineated by signage on major arterials

but...
• its boundaries are often undetectable to the average visitor (hence signage!);

• its boundaries are of limited relevance to overall tourism activities or itinerary planning;

• greenbelt is contiguous with, and synergistically related to, surrounding non-Greenbelt areas.
relatively few greenbelt destinations are ‘must-see’ attractions in their own right.

however:

there are many distinctive, desirable, and unique destinations throughout the greenbelt.

in aggregate, they can add up to a compelling tourism experience.
Niagara Greenbelt Region

the greenbelt is greater than the sum of its parts,

and should continue to be promoted holistically
tourism in niagara’s greenbelt

greenbelt attributes evoke tourism themes that are compelling and attractive

**greenbelt attributes**
- protected green space
- farmland
- vibrant communities
- forests, wetlands, and watersheds
- fresh air
- clean water
- healthy local food

**greenbelt tourism outcomes**
- culinary tourism
- wine tourism
- agritourism: local food, local production, local consumption
- nature-based tourism pursuits (birding, botanizing, horticulture)
- heritage tourism
- outdoor activities (hiking, cycling, boating)
Culinary tourism
Culinary tourism
Grape and wine production
Grape and wine production
Tender fruit production
Pioneer heritage attractions
Birding and wildlife
Trails, greenways and waterways
Trails, greenways and waterways
Trails, greenways and waterways
Waterfalls and cataracts
Industrial Heritage
Industrial Heritage
Transportation infrastructure – modern and historic
Parks and conservation areas
Cycling routes and destinations
tourism in niagara’s greenbelt

greenbelt attributes evoke tourism themes that are compelling and attractive

Evaluating the Economic Benefits of Greenbelt Assets (March 2012):

“The Greenbelt region is also blessed with pristine countryside, exceptional rural tourism and recreation opportunities. The Greenbelt Plan recognizes the value of trails that provide residents and visitors with a way to explore and appreciate nature whether on foot, ski or bicycle and provide local businesses with opportunities that may not exist in their absence. These endowments are major assets in the pursuit of developing countryside tourism that attracts local and international tourists and helps to foster economic vitality and dynamism.”

(p.6)
tourism in niagara’s greenbelt

greenbelt attributes evoke tourism themes that are compelling and attractive

however:

some themes have become almost generic, and have been adopted by many other tourism destinations
tourism in niagara’s greenbelt

Niagara’s RTO promotes:

- Culinary Experiences
- Wine Country
- Cycling
- Hiking

Prince Edward County promotes:

- Culinary Adventures
- Wineries
- Cycling
- Parks & Trails
tourism in niagara’s greenbelt

Fishing

Golf

Bird Watching

...etc.!
tourism in niagara’s greenbelt

to effectively promote greenbelt tourism:

- we must know - and show - what is genuinely unique in the niagara greenbelt

- we must aim to provide fine-grained insight into greenbelt points of interest

- because greenbelt tourism is a holistic experience, we must show tourists what greenbelt and adjacent destinations can offer in aggregate
Prototype tool for integration:

Niagara Greenbelt Gateway Website

www.niagaragreenbelt.com
www.niagaragreenbelt.com
goals of project:

- introduce people to natural and cultural assets in an integrated manner
- take focus off of traditional mass tourism destinations
- emphasize ‘Greenbelt principles’
- promote sustainable tourism practices
- get people out of their cars
goals of project:
- promote diversified economic activity in agricultural, cultural, tourism sectors
- take advantage of new technologies
- provide free interpretive information
- keep visitors in Niagara longer!
- build for the future: modular design, adaptable content
Website features

Point of Interest (POI) pages

- Resource profiles arranged by categories, subcategories
- Google Maps integration to show location of sites
- Full details on 700+ destinations, tours, events
- Planned: WIKI functionality, user reviews
website features

point of interest (poi) pages
- detailed point of interest page created for every Greenbelt asset
- description, features, location, GPS coordinates, etc.
- key photos of POI, photo gallery
- example: Morningstar Mill
Morningstar Mill

Listings - Destinations/Mills
St. Catharines
2710 DeCew Road St. Catharines, Ontario L2R 6P7 (905) 688-6050

Thanks to the Friends of Morningstar Mill, there is now a fully restored 1872 grist mill beside beautiful DeCew Falls, a 22 metre (75 foot) waterfall. It is the only water powered ...

Add this location to my itinerary

Morningstar Mill Living Museum Park (Mountain Mills Museum)

Listings - Destinations/Museums & Interpretive Centres
St. Catharines
2710 DeCew Road St. Catharines, Ontario L2R 6P7 (905) 688-6050

Morningstar Mill is a fully restored nineteenth-century grist mill, and the only operating water powered mill in the Niagara Peninsula. It has been restored to working order by a dedicated nonprofit ...

Add this location to my itinerary
Thanks to the Friends of Morningstar Mill, there is now a fully restored 1872 grist mill beside beautiful DeCew Falls, a 22 metre (75 foot) waterfall. It is the only water powered operating mill in the Niagara Peninsula and was one of the first milling operations to be powered by a water-powered turbine instead of a traditional waterwheel.

If you are out for a country ramble you can stop by the Morningstar Mill Living Museum...
Admission Fee
Free admission, however donations are gratefully received and go to the preservation of the site, all buildings and displays. Donations of old tools, steel for the Blacksmith's shop, Canadian Tire money or money of any kind are appreciated. If you are interested in helping, cheques can be made to Friends of the Morningstar Mill. If you would like a charitable tax receipt please send to the City of St. Catharines, Recreation and Community Services Department, PO Box 3012, 320 Geneva Street, St. Catharines, Ontario L2R 7C2

Accessibility
Partially Accessible

Wheelchair Accessible Washroom

Address
Morningstar Mill
2710 DeCew Road
St. Catharines, Ontario
L2R 6P7 Municipality City of St. Catharines

Telephone
(905) 688-6050

Website
www.morningstarmill.ca

GPS Co-ordinates
Latitude 43.1100163139
Longitude -79.264371739
UTM easting 641217
UTM northing 4774494

Directions
From Toronto, QEW exit 49 to Hwy 406 and drive about 11 km

Right on St. Davids Road West

Left on Merrittville Hwy at the second stop light and drive about 1 km
website features

TripClips

- interpretive audio and video info in downloadable format (mp3, mp4)
- playable on car stereos, iPods, mp3 players, smartphones, etc.
- standalone interpretive info for individual POIs, or incorporated into tours
AUDIO FILES

click to play ->

Hours of Operation

May 1 - Thanksgiving Weekend  "Depending on the weather you will probably find us before and after these dates so please feel free to come and visit." Most Tuesdays and Thursdays  9:00 am - 2:00 pm or 3:00 pm Saturday, Sunday and holiday Mondays  9:00 am - 3:00 pm The Friends of Morningstar Mill currently work mainly on Tuesday and Thursday from 9:00 am till about 3:00 pm. Saturday and Sunday from 10 am - 3:00 pm Saturday May 30 and Sunday May 31 2009 Spring Open House The Mill will be running at 1:00 pm each day. Blacksmiths will be working both days. Closed July 1 weekend each year. "July 1 weekend each year we will be closed so that our volunteers can attend and participate in the Sherkston Antique Steam Show."

Ownership & Management

City of St. Catharines owner

Friends of Morningstar Mill manager

Admission Fee

Free admission, however donations are gratefully received and go to the preservation of the site, all buildings and displays. Donations of old tools, steel for the Blacksmith's shop, Canadian Tire money or money of any kind are appreciated. If you are interested in helping, cheques can be made to Friends of the Morningstar Mill. If you would like a charitable tax receipt please send to the City of St. Catharines, Recreation and Community Services Department, PO Box 3012, 320 Geneva Street, St. Catharines, Ontario L2R 7C2

Accessibility

Partially Accessible
TripClips:

- **GPS integration**: we are working on automatic triggering of media clip based on physical location -> great interpretive potential!!

- [[murmur]] - style cell-phone dial-up access has also been piloted (VoIP technology) for old style cell phones
itinerary planner function
allows users to choose
any poi sites and join
them together into a
custom tour
poi sites can be added,
deleted, or rearranged
custom map with turn-by-
turn directions is created
**website features**

**itinerary planner function**

□ completed itinerary can be printed, e-mailed to other users, or (soon) saved

□ when finished: itinerary, route map, directions, poi sheets, and media content can be downloaded to user’s computer or mobile device
website features

**itinerary planner function**

- completed itinerary can be printed, e-mailed to other users, or (soon) saved

- new mobile version integrates directly with navigation program on smartphone to take you directly to the destination
MINI TOURS
Compact tour itineraries with directions, maps, and basic interpretive information for tours in various categories.

GREENBELT FAMILY BIKE ADVENTURES
These tours are on trails and back roads well away from auto traffic, and are a good choice for families with kids or for groups of cyclists of varying abilities.

Choose from the list of tour locations provided, or check out the `Trails` Point of Interest pages to find a cycling trail close to you.

GREENBELT GOODIES
Destinations where you can find baked goods, sweets, bread and candy with that special Niagara Greenbelt appeal.

Choose from the list of delicious destinations provided, or check out the individual Point of Interest pages to find a bakery or sweets shop close to you.
website features

**itinerary planner function**

Tour themes can

- promote and integrate specific destinations in the community (parks, trails, markets, museums, galleries)

- recognize and emphasize specific growers, producers, and craftspeople (e.g., pick-it-up picnic; icewine tour; craft tour)
outline – part II

- evolution of mobile interpretive technologies: Laura Secord Heritage Trail case study

- the interpretours digital interpretive platform:
  - evolution and development
  - scope and function
  - uses for education, interpretation, commerce
  - promise and pitfalls

- opportunities and implications
evolution of the platform:
The Laura Secord Legacy Trail
The Laura Secord Legacy Trail

> 75% of trail is within the NIAGARA GREEN BELT
The Laura Secord Legacy Trail:

- follows everything from ancient forested Indian trails to modern city sidewalks
- can be followed continuously, or broken into shorter segments
Goals achieved:

• permanently designated and marked the trail

• interpreted the trail with permanent suite of multimedia resources (conventional, online and mobile) accessible to locals and visitors alike –

• POI pages
POI pages for 50+ on- and off-trail destinations:

- Laura Secord Homestead, NOTL
- Actual Battle of Beaverdams site, Thorold
- Sites of First Nations significance
- Battle of Beaverdams Park, Thorold
- Decew House, Thorold
- Laura Secord Gravesite, NFLS
- Laura Secord House, Chippawa
- Laura Secord Monument, Queenston Heights
- Homes and farms of Laura Secord relatives
- etc!
Laura Secord Homestead
Laura Secord Homestead Ontario L0S 1L0

TRIP CLIP AUDIO - LAURA SECORD HOMESTEAD
Click to play or download LAURA SECORD HOMESTEAD TripClip (mp3 format).

TRIP CLIP AUDIO - WHO IS LAURA SECORD? THE START OF A JOURNEY
Click to play or download WHO IS LAURA SECORD? TripClip (mp3 format).
Battle of Beaverdams Park

Battle of Beaverdams Park Thorold, Ontario

TRIP CLIP AUDIO - BATTLE OF BEAVERDAMS PARK

Click to play or download Battle of Beaverdams Park TripClip (mp3 format).

Top left: Entrance to park; Bottom left: Benches alongside bandshell; Top right: Cast iron anchor memorial; Bottom right: Battle of Beaverdams monument.
DeCew House

0.5 km west of the intersection of Merrittville Hwy and Decew Road Thorold

TRIP CLIP AUDIO - DECEW HOUSE

Click to play or download DeCew House (mp3 format).

Left: Hearth of original fireplace; Top right: Historical plaque on DeCew House foundation; Bottom right: Restored foundation of DeCew House, destroyed by fire in 1950. Photos: David T. Brown
Laura Secord Gravesite

Left: full view of gravestone; Right: close-up of bust of Laura Secord atop gravestone (photos: Cavelle Schmid, Kristin Atkinson).

GENERAL INFORMATION

Laura Secord’s famous grave is located within the Drummond Hill Cemetery. Laura was a prominent figure during the war of 1812. Laura shares her final resting place along with many of those who fought during the Battle of Lundy’s Lane in the War of 1812.

The story of Laura Secord and her exploits became more widely known after she was honoured in 1860 by Edward VII, then Prince of Wales, with a gift of 100 pounds. The publication of an erroneous but popular account of her deeds by
Laura Secord House, Chippawa

Top left: Front view of Laura Secord House, Chippawa; Bottom left: Southwest wing of home with sheltered veranda; Top right: Plaque commemorating Laura Secord in front of home; Bottom right: Laura Secord Home in July 1925 (all images courtesy Niagara Falls Public Library digital image collection)

Laura Ingersoll Secord, heroine of the War of 1812, lived for 27 years in the charming red brick house located at 3800 Bridgewater Street in the village of Chippawa, Niagara Falls.
Laura Secord Monument, Queenston Heights

Left: Bas-relief portrait of a mature Laura Secord; Right: Laura Secord Monument with inscription commemorating her heroism and bravery.

Located on the edge of the Escarpment in Queenston Heights Park, the Laura Secord Monument at Queenston Heights reads:

To Laura Ingersoll Secord, who saved her husband's life in the battle on these Heights October 13th 1812 and who risked her own in conveying to Capt. FitzGibbon information by which he won the victory of Beaverdam.

Laura Secord Monument, Queenston Heights
Destinations may be strung together creatively to create thematic tours... but on trails, - promotion - wayfinding - interpretation are required in the field
Laura’s Legacy in your Pocket:
using mobile technologies to tell her story on the trail
Goals achieved:

• permanently designated and marked the trail

• interpreted the trail with permanent suite of multimedia resources (conventional, online and mobile) accessible to locals and visitors alike –
  • POI pages
  • early mobile audio tours
Early locational interpretation (2010)

Heritage Hotline system offered dial-up interpretive information on a regular mobile phone:

<table>
<thead>
<tr>
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<tr>
<td>WHO IS LAURA SECORD?</td>
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<td>LAURA’S LATER LIFE</td>
<td>905-378-5751</td>
</tr>
<tr>
<td>LAURA SECORD GRAVESITE, DRUMMOND HILL CEMETERY</td>
<td>905-378-5752</td>
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<td>905-378-5753</td>
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<td>905-378-5754</td>
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<tr>
<td>WILLIAM HAMILTON MERRITT MONUMENT</td>
<td>905-378-5755</td>
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<tr>
<td>MORNINGSTAR MILL</td>
<td>905-378-5756</td>
</tr>
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<td>DECEW FALLS</td>
<td>905-378-5757</td>
</tr>
<tr>
<td>DECEW HOUSE</td>
<td>905-378-5758</td>
</tr>
<tr>
<td>DECEW TOWN</td>
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## Early locational interpretation (2010)

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Goals achieved:

• permanently designated and marked the trail

• interpreted the trail with permanent suite of multimedia resources (conventional, online and mobile) accessible to locals and visitors alike –
  
  • POI pages
  • early mobile audio tours
  • mobile browser access to POI pages
Mobile browser access in the field

Navigate to TripClips mobile links page

Click link to view website...
Mobile browser access in the field

Navigate to TripClips mobile links page

Click link to view website...

...or to hear TripClip audio interpretation on wireless browser.
Goals achieved:

• permanently designated and marked the trail
• interpreted the trail with permanent suite of multimedia resources (conventional, online and mobile) accessible to locals and visitors alike –
  • POI pages
  • early mobile audio tours
  • mobile browser access to POI pages
  • QR code interpretation
...and now, with QR Smartphone technology

QR Code system

- Install QR code at site (easy, cheap)
- Scan the QR code with your smartphone camera
- Your mobile browser links you directly to the interpretive info with one click
...and now, with QR Smartphone technology

**QR Codes**
May link to:
- Web pages
- Audio clips
- Maps
- Photos
...and now, with QR Smartphone technology

QR Codes
May link to:

- Web pages
- Audio clips
- Maps
- Photos
- Videos
- etc.
Goals achieved:

- permanently designated and marked the trail
- interpreted the trail with permanent suite of multimedia resources (conventional, online and mobile) accessible to locals and visitors alike –
  - POI pages
  - early mobile audio tours
  - mobile browser access to POI pages
  - QR code interpretation
  - next: location-triggered interpretation
location triggered interpretation

- Your **physical location** will **automatically** trigger a directional prompt or a media clip about points of interest in predefined categories you have chosen.
- Useful for pre-defined **tours**
- Useful in ‘**discovery mode**’ to alert you to destinations you are unaware of

**CURRENTLY UNDER DEVELOPMENT**
Interpretoirs
digital interpretive platform

Mobile App Concept
interpretours
mobile digital interpretive platform

Release 2015-02-04:

interpretours