Integrated trip-fare calculator - a sought-after feature in a transit agency website

Session: Best Practices in (Urban) Transportation Planning - Transit Planning

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1. MOTIVATION

CONTEXT

AMT works towards easier travel for transit users and potential users in the Montréal region, by providing

- A simplified, efficient and integrated fare structure
- Better quality traveller information that is easily accessible, coherent and personalized

There is any opportunity of providing new tools and functions as the AMT is remodelling its website.

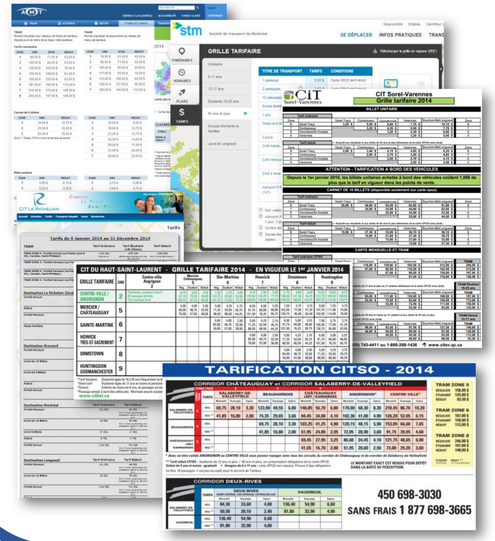
RELEVANCE OF A REGIONAL FARE-PROPOSING TOOL

The fare system is complex:

- 14 transit providers and AMT
- Coexistence of local and integrated fares
- The diversity of fare rules, fare products and reduced fare criteria
- Partial information in various locations and formats

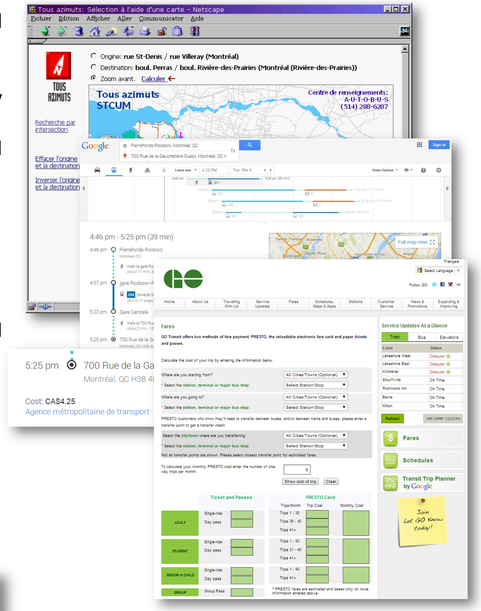
The trip pattern is complex:

- 35% of transit trips are multi-modal
- 21% are inter-regional



EXISTING TOOLS

Interactive trip planner, Google map, fare calculator



3 T'S THE INTEGRATED TOOL SHOULD PROVIDE

A trip planner that facilitates multi-modal trips for the whole region

- **Trajet (trip)**

A fare tool that facilitates the understanding of fare structure and fare product purchase for the whole region

- **Titre (fare product)**
- **Tarif (fare)**

The integrated tool should link

- Trip with fare products
- Single-trip fare products with fare packages
- User characteristics with reduced fares eligibility

2. METHODOLOGY

PARADOX

An opportunity to offer a service to users *vs* technical challenges

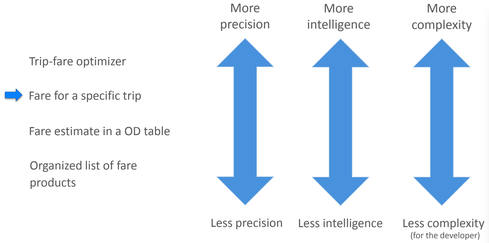
OBJECTIVE

One possible approach is to provide an information tool which helps decision making.

- It should not decide for the user but offers intelligence and advice to make the choice easier
- It should summarize information
- It should be automated

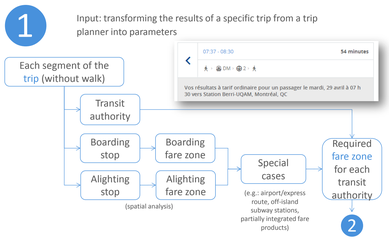
The tool should suggest relevant fare products in a logical order according to the trip, fare, user characteristics, and frequency of travel, all within a regional context.

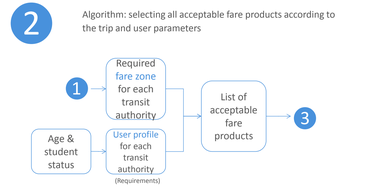
LEVELS OF INTELLIGENCE

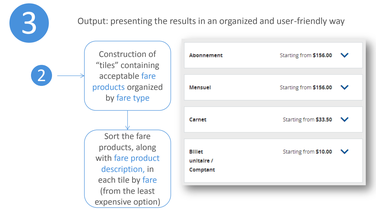


3. RESULTS

COMPONENTS, FLOWS AND DATA







DEMONSTRATION

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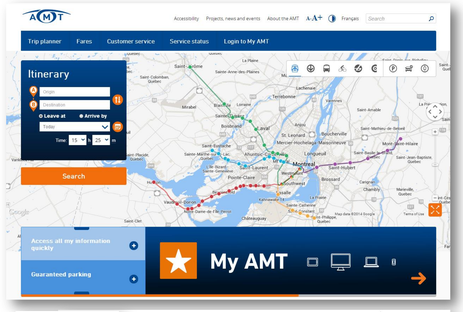

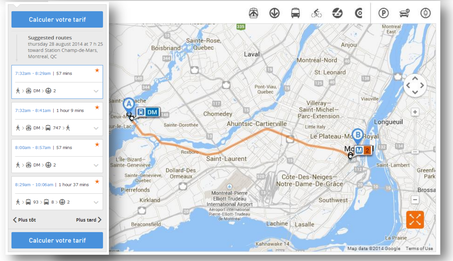

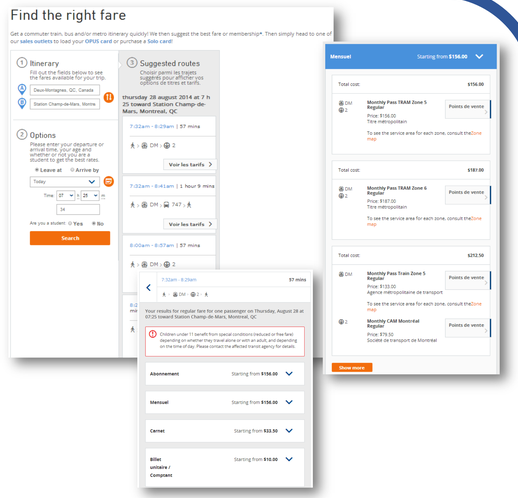

4. CONCLUSION

The tool is now an integral function of the AMT beta website. Here are the contributing factors:

- Stemmed from a real need and a desire to improve customer experience
- Idea, proof of concept, need assessment generated in-house
- Cross-departmental teamwork
- Existing knowledge on the OPUS smart card automatic fare collection system, especially in the definition of parameters of fare products, as well as on the integrated and local fare structures
- Existing database structure that manages sale records of all fare products in the Montréal region
- Automation for reference data maintenance
- Flexible data structure and algorithm transposable to trip planners if required

Future direction:

- Diagnosis and improvement on the current tool
- Further automation to make reference data maintenance easier

AMT is a government agency with a mission to improve the efficiency of passenger transport in the Montréal metropolitan area.