CantusDB & the DACT Project

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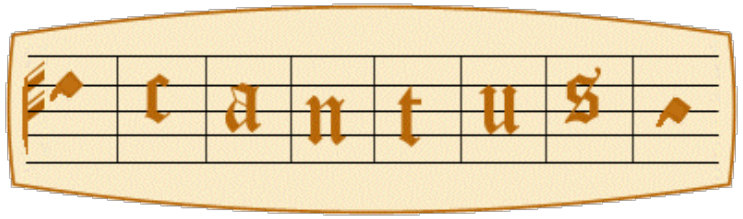
DDMAL Lab, McGill University

LinkedMusic Project Meeting II, 21 October 2023
McGill University, Montréal, Canada

The Cantus Environment



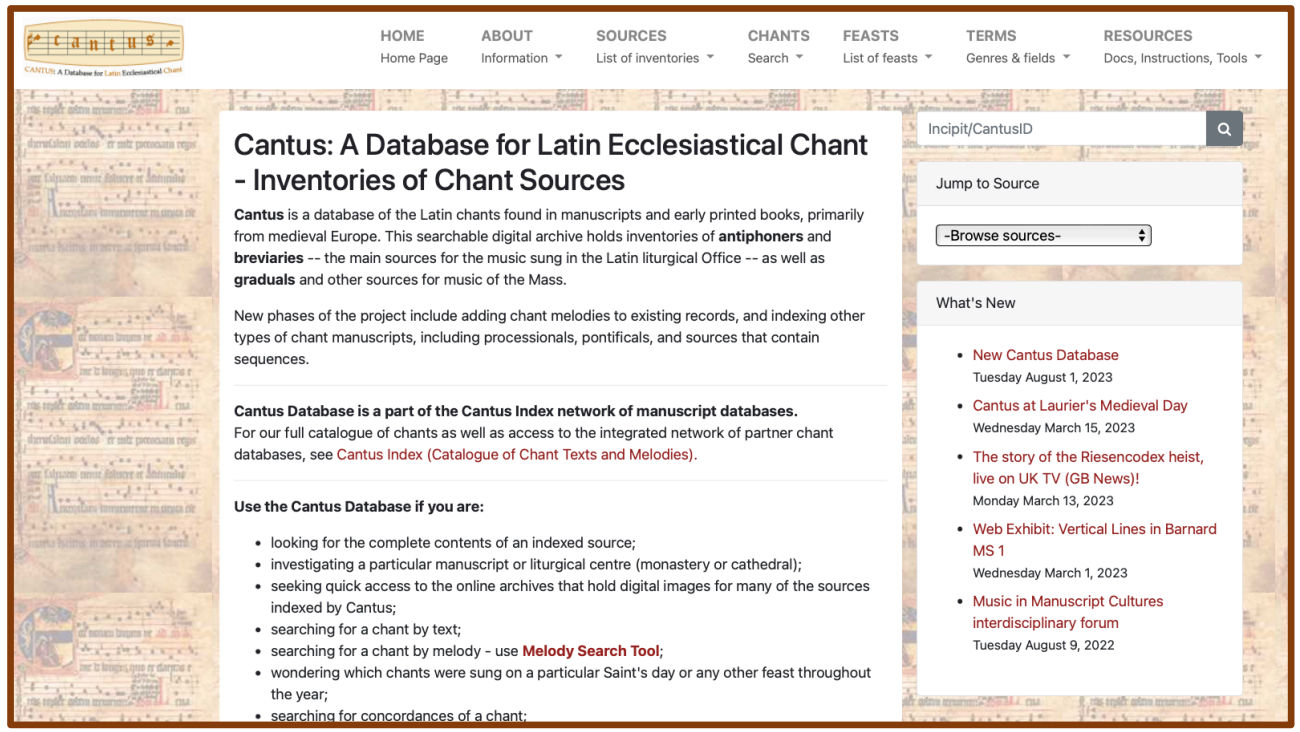
- “tables of contents” of medieval chant books
- 35+ years
- 500,000 records from over 200 sources (more in progress)
- significant research impact
- used by academics, performers, librarians & archivists, and others
- also accessed by the general public
- began on a mainframe with COBOL applications, moved to WordPerfect 5.1 (DOS), then Access, then Drupal…

CANTUS INDEX

ONLINE CATALOGUE FOR MASS AND OFFICE CHANTS

- a catalogue of chant texts and melodies
- a hub site connecting 18 chant databases and research/analysis websites
- since 2012
- 57,000 records
  - representing 108 genres (types of chant)
- user interface allows searching across all networked sites
- API allows export of the data

https://cantusdatabase.org



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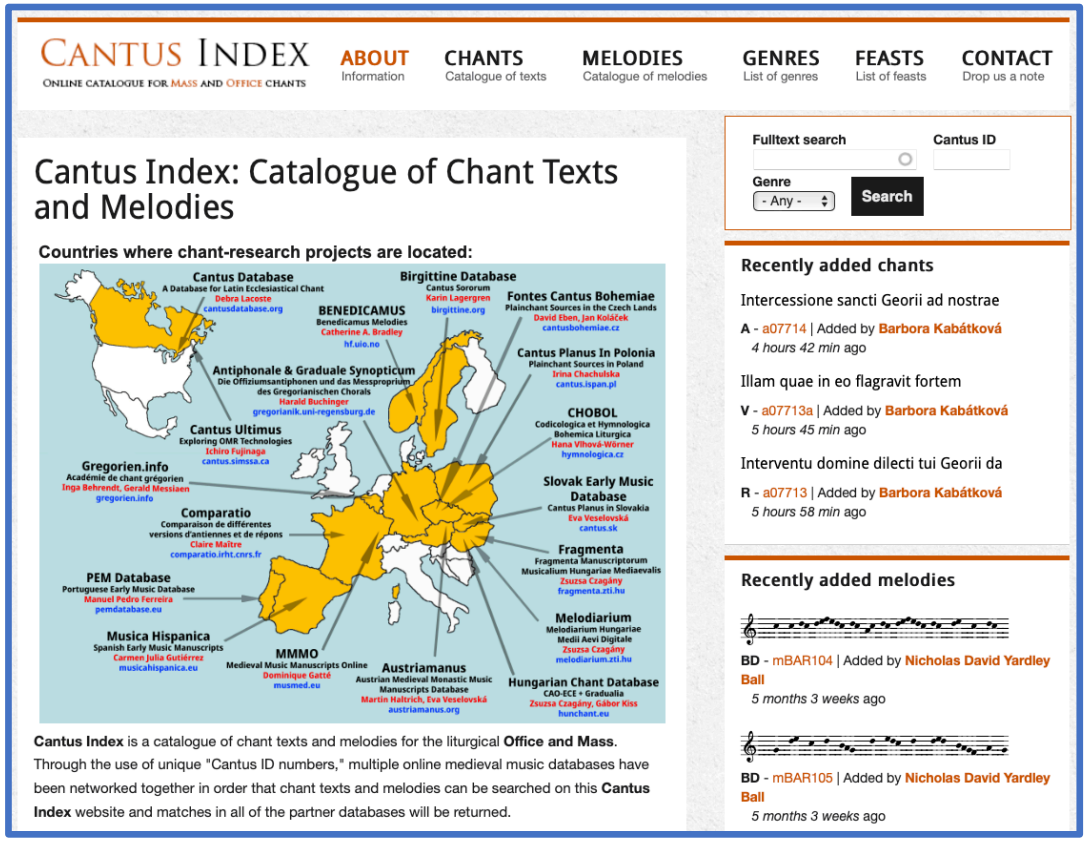
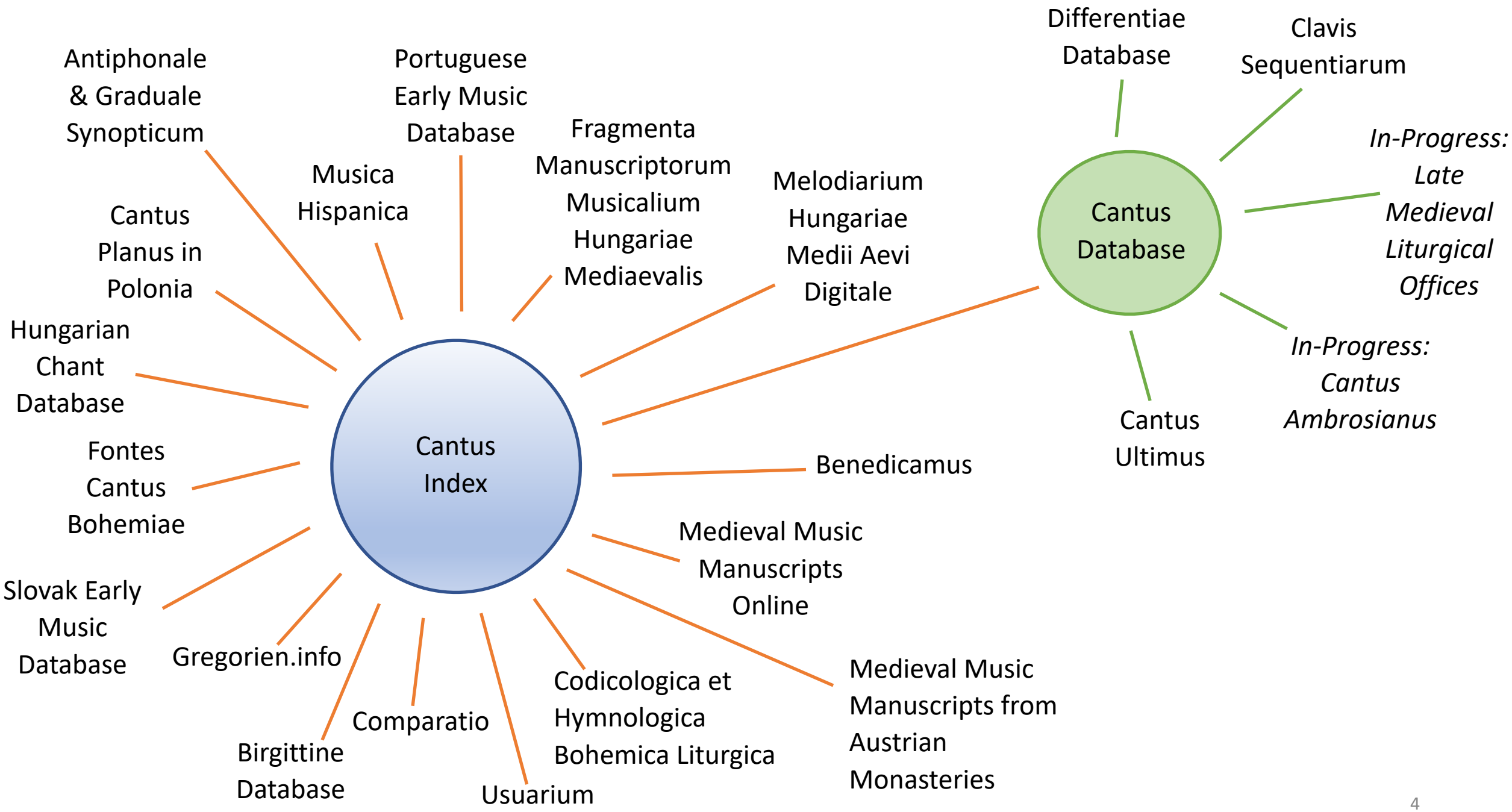
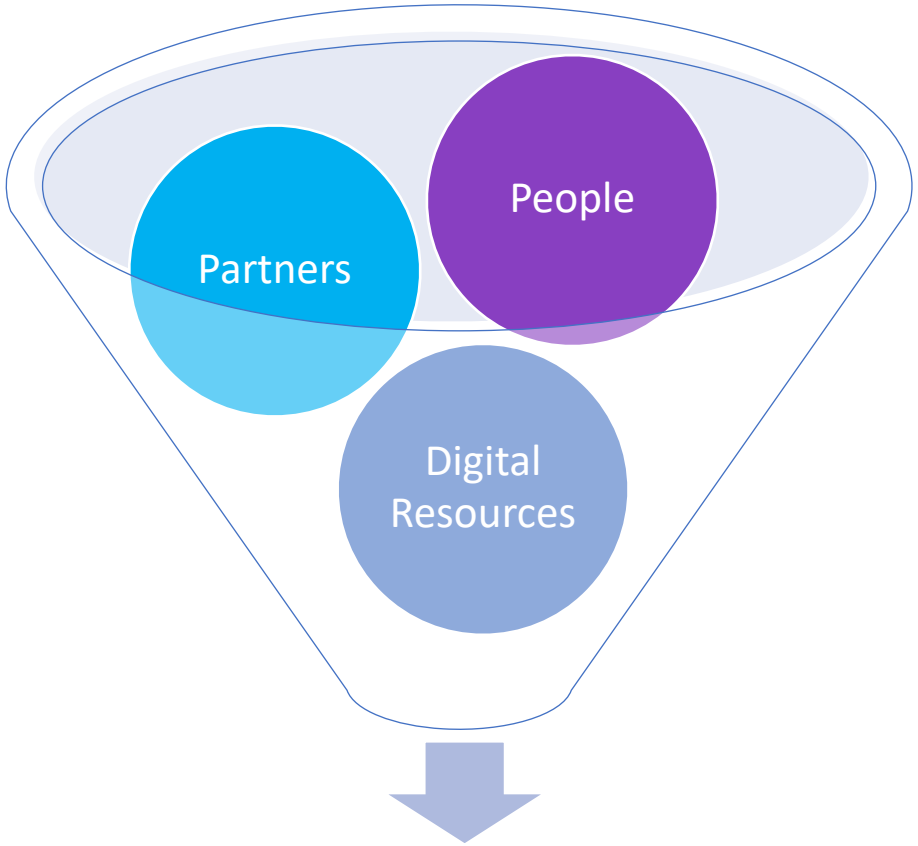



Cantus Index
Antiphonale & Graduale Synopticum
Musica Hispanica
Portuguese Early Music Database
Fragmenta Manuscriptorum Musicalium Hungariae Mediaevalis
Melodiarium Hungariae Medii Aevi Digitale
Cantus Planus in Polonia
Hungarian Chant Database
Fontes Cantus Bohemiae
Slovak Early Music Database
Gregorien.info
Birgittine Database
Comparatio
Usuarium
Codicologica et Hymnologica Bohemica Liturgica
Medieval Music Manuscripts from Austrian Monasteries
Benedicamus
Medieval Music Manuscripts Online
Cantus Database
Differentiae Database
Clavis Sequentiarum
In-Progress: Late Medieval Liturgical Offices
In-Progress: Cantus Ambrosianus
Cantus Ultimus

SSHRC Partnership Grant 2023-30



DIGITAL ANALYSIS OF CHANT TRANSMISSION

DIGITAL ANALYSIS OF CHANT TRANSMISSION

SSHRC Partnership Grant 895-2023-1002

Partner Organizations

Directors

Co-Investigators

Collaborators

Scientific Advisory Board

Principal Investigator: Jennifer Bain (Dalhousie U)
Project Manager: Debra Lacoste (Dalhousie U)

DACT Host & 20 Partner Organizations

- Dalhousie University, Halifax, Nova Scotia, Canada [Host Institution]
- ACENET, Supercomputing in Atlantic Canada (regional partner for The Digital Research Alliance of Canada)
- Bodleian Libraries, University of Oxford, UK
- Cape Breton University, Sydney, Nova Scotia, Canada
- Hill Museum and Manuscript Library, Collegeville, Minnesota, USA
- Hungarian Academy of Sciences, Budapest, Hungary, Research Centre for the Humanities, Institute for Musicology
- McGill University, Montréal, Québec, Canada, Schulich School of Music
- Mount Allison University, Sackville, New Brunswick, Canada
- Polish Academy of Sciences, Warszawa, Poland, Institute of Art
- RISM Digital Center, Bern, Switzerland
- Slovak Academy of Sciences, Institute of

DACT Host & Partner Organizations, cont.

- Universidad Complutense de Madrid, Spain, Musica Hispanica / Spanish Early Music Manuscripts
- Universidade NOVA de Lisboa, Faculdade de Ciências Sociais e Humanas, Lisbon, Portugal, Centro de Estudos de Sociologia e Estética Musical (Centre for the Study of the Sociology and Aesthetics of Music CESEM)
- Université de Fribourg, Switzerland, e-codices, Fragmentarium
- University of Manitoba, Winnipeg, Manitoba, Canada
- University of Missouri-Kansas City, USA, CODICES: Digital Humanities Lab
- University of Oslo, Norway, BENEDICAMUS project
- University of Oxford, UK, DIAMM (the Digital Image Archive of Medieval Music)
- University of Waterloo, Ontario, Canada, Cantus: A Database for Latin Ecclesiastical Chant
- Wilfrid Laurier University, Waterloo,

DACT 23 Co-Investigators

- Alison Altstatt (U of Northern Iowa)
- Houman Behzadi (McGill U - Music Library)
- Virginia Blanton (U of Missouri - Kansas City)
- Catherine Bradley (U of Oslo)
- Julia Craig-McFeely (Oxford U)
- Julie Cumming (McGill U)
- Elsa De Luca (Universidade NOVA de Lisboa)
- Ichiro Fujinaga (McGill U)
- Marianne Gillion (Uppsala Universiteit)
- Jan Hajič (Charles U)
- Kate Helsen (Western U)
- Lionel Li-Xing Hong (Fu Jen Catholic U)
- Christine McWebb (U of Waterloo)
- Janine Metallic (McGill U)
- Michael Norton (James Madison U)
- Marcia Ostashewski (Cape Breton U)
- Linda Pearse (Mount Allison U)
- Laurent Pugin (RISM Digital)
- Rebecca Shaw (U of Toronto Libraries)
- Kate Kennedy Steiner (Conrad Grebel UC at U of Waterloo)
- Laurianne Sylvester (Unama'ki College at Cape Breton U)
- Giovanni Varelli (U of Pavia)

DACT 23 Collaborators

- David Andrés Fernández (Universidad Complutense de Madrid)
- Terence Bailey (Western U)
- Inga Behrendt (Eberhard Karls Universität Tübingen)
- Lisa Binkley (Dalhousie U)
- Susan Boynton (Columbia U)
- Mark Daley (Western U)
- William Duba (U of Fribourg)
- Fr. Roman Dusanowskyj (Holy Ghost Ukrainian Catholic Church)
- Deantha Edmunds-Ramsay (Inuk classical soloist, Nova Scotia)
- Manuel Pedro Ferreira (Universidade NOVA de Lisboa)
- Richard Haefer (Arizona State U)
- Barbara Haggh-Huglo (U of Maryland)
- Andrew Hankinson (RISM Digital)
- Jane Hardie (U of Sydney)
- Thomas Forrest Kelly (Harvard U)
- Sarah Ann Long (Michigan State U)
- Rachel McNellis (Independent Scholar)
- Kathleen Nelson (U of Sydney)
- Margaret Robinson (Dalhousie U)
- Gordon E. Smith (Queen's University)
- Janice Tulk (Cape Breton U)
- Melanie Turgeon (The King's University -

DACT 3 Scientific Advisory Council Members

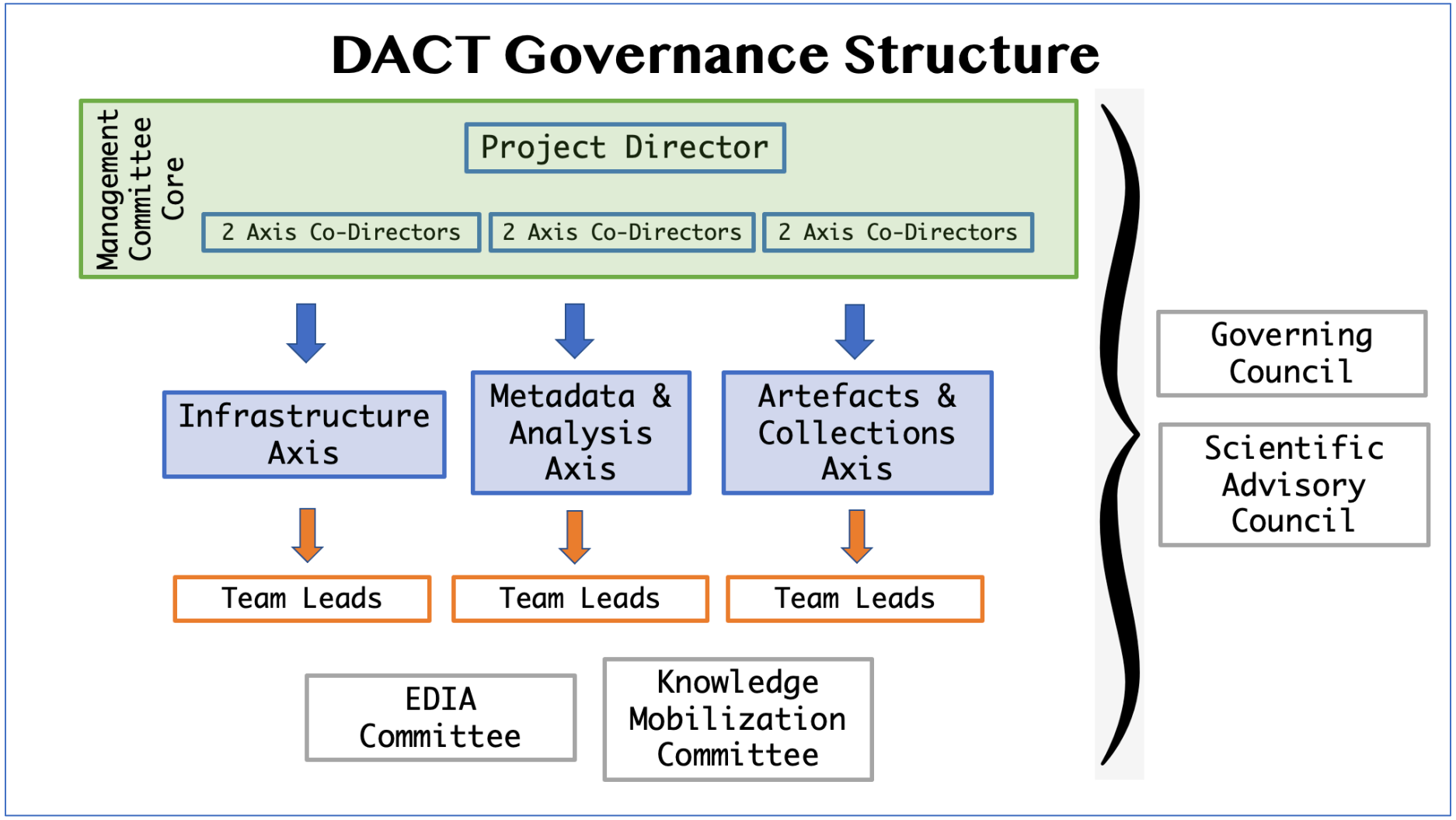
- David Burn (KU Leuven)
- Lisa Fagin Davis (Medieval Academy of America)
- Dylan Robinson (U of British Columbia)

What is DACT?

DACT is a collaborative, team-based partnership project that aims to trace and understand the transmission of medieval chant through Time and Place.

Understanding how chant traveled and adapted over time and place through oral and written traditions is important for what it can tell us about the communication of culture through the encounters of people and ideas.

Governance for DACT



Governance for CD and CI

CANTUS DATABASE AND CANTUS INDEX GOVERNANCE STRUCTURE

CANTUS INDEX
ONLINE CATALOGUE FOR MASS AND OFFICE CHANTS

Cantus Database and Cantus Index Governance Structure

Cantus Governing Council

Membership:

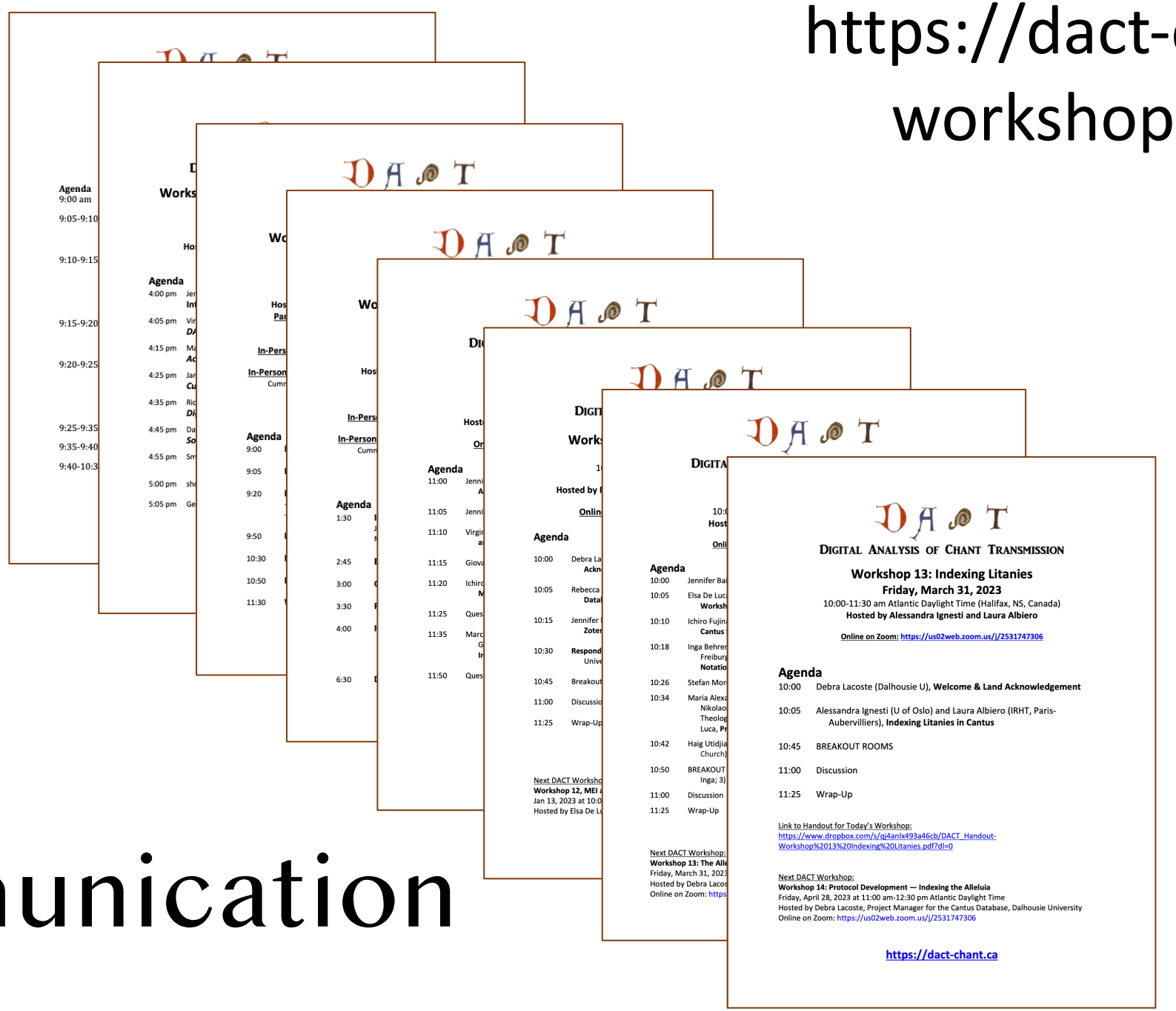
- Directors of research projects providing funding for the *Cantus Database* and *Cantus Index* (currently *Digital Analysis of Chant Transmission* Director and *LinkedMusic* Director)
- DIAMM Director or representative
- RISM Digital Center Director or representative
- *Cantus Database* Project Manager / Director (ex officio)
- *Cantus Index* Project Manager / Director (ex officio)

Responsibilities:

1. establish and maintain the *Cantus Scientific Advisory Board*, considering senior/junior researchers, research field, and global geographical distribution
2. approve annual budget
3. consider annual technological developments and direction

...

https://dact-chant.ca/workshops.html



DACT

DIGITAL ANALYSIS OF CHANT TRANSMISSION

Workshop 13: Indexing Litanies
Friday, March 31, 2023
10:00-11:30 am Atlantic Daylight Time (Halifax, NS, Canada)
Hosted by Alessandra Ignesti and Laura Albiero

Online on Zoom: https://us02web.zoom.us/j/2531747306

Agenda

10:00 Debra Lacoste (Dalhousie U), **Welcome & Land Acknowledgement**

10:05 Alessandra Ignesti (U of Oslo) and Laura Albiero (IRHT, Paris-Aubervilliers), **Indexing Litanies in Cantus**

10:45 BREAKOUT ROOMS

11:00 Discussion

11:25 Wrap-Up

Link to Handout for Today's Workshop:
https://www.dropbox.com/s/qj4anlx493a46cb/DACT_Handout-Workshop%2013%20Indexing%20Litanies.pdf?dl=0

Next DACT Workshop:
Workshop 14: Protocol Development — Indexing the Alleluia
Friday, April 28, 2023 at 11:00 am-12:30 pm Atlantic Daylight Time
Hosted by Debra Lacoste, Project Manager for the Cantus Database, Dalhousie University
Online on Zoom: https://us02web.zoom.us/j/2531747306

https://dact-chant.ca

Communication

New & Potential Developments

- Cantus Ultimus user interface
  - images and chant data together on the same screen
- Reorganization / rethinking of "feast" table
  - Currently over 1700 individual liturgical occasions that happen throughout a year
    - Eg. Saints' days, ordinary days of the week, Sundays in a season such as Advent, Christmas, Easter, ordinations of bishops, rites for the visiting of the sick, for those possessed by evil spirits, or for the anointing of beards, etc.
  - Wikidata? (We want widespread adoption but we want to control editing.)
  - Establish our ontology
    - It is already in use throughout the Cantus Index network (18 projects / sites).
- Data provenance – how to capture this?
- Lists of sources, both uninventoried and inventoried (a DACT outcome), with clear interfaces for users (lists of Spanish Cantorales, lists of sources in archives in western Canada, etc.)
- "Canadian Chant Database"

Canadian Chant Database

Canadian Chant Database

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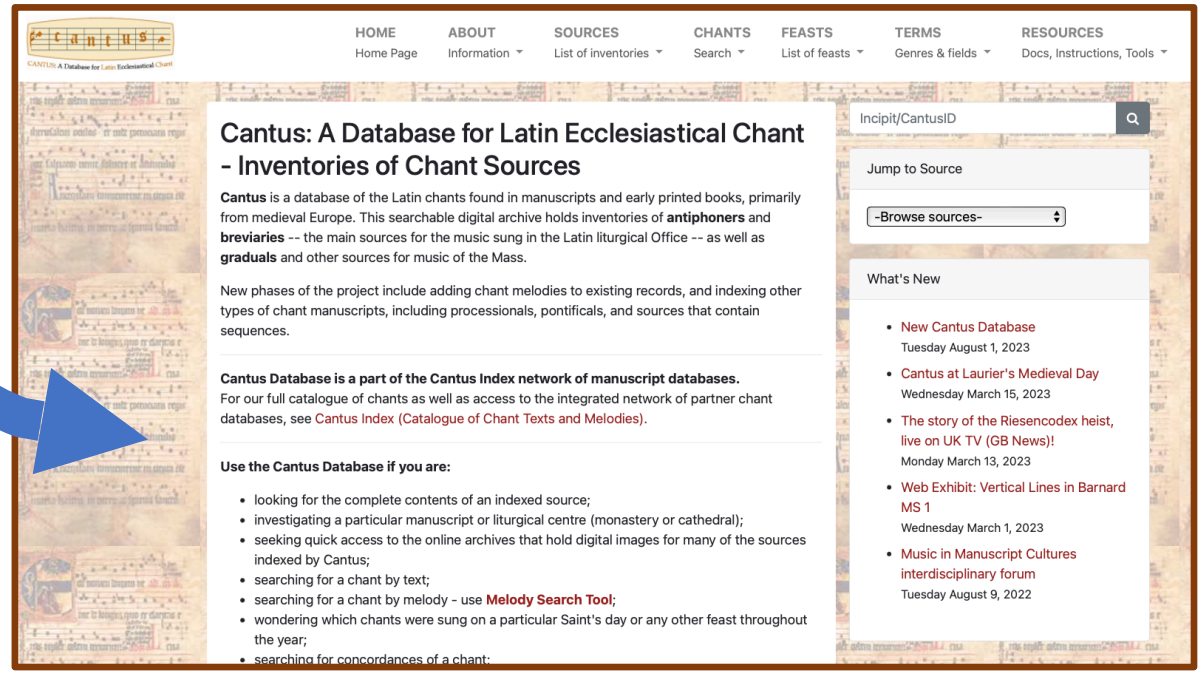


Canadian Chant Database

- **Lists of manuscripts** in Canadian archives and private collections, with links to inventories in the Cantus Database (if available)
- **Lists of fragments** of chant manuscripts in Canadian archives and private collections, with links to inventories (if available) and links to images of the artefacts in Fragmentarium
- Legacy Features: **Canadian Chant Researchers**' bios, bibliographies, and links to resources/work
- Potential online access for Indigenous chant materials, at the request of and with the needs of each community in mind

OldCantus to NewCantus: Challenges and Design Choices

Outline

- Motivation
- Status
- Challenge: Drupal's Nodes and Backwards Compatibility
- Design Choice: Visibility (who can see what?)
- Design Choice: Users and Indexers

NewCantus: Motivation

- OldCantus in Drupal: Drupal 7 nearing end-of-life
  - NewCantus in Django (PostgreSQL backend)
- OldCantus is not open-source
  - NewCantus is open-source
- Opportunity for an overhaul

NewCantus: Status

- Soft launch: late June, 2023
- Full launch: MedRen, July 24, 2023
- https://cantusdatabase.org

Design Choice: how do we control who sees what?

- OldCantus has `published` and `visible` boolean fields on Sources and Chants
  - Objects could also be at different points in indexing process
- NewCantus has a single `published` boolean field, and only on Sources
- Anonymous users can see only published Sources, and only those Chants contained within published Sources
- Logged-in users can see all Sources and all Chants

Nodes and redirects

- OldCantus: all Chants, Sequences, Sources, Articles, etc. stored in a single table, as Nodes
  - Nodes numbered sequentially
  - https://cantus.uwaterloo.ca/node/712335 vs. /article/712335
  - https://cantus.uwaterloo.ca/node/712336 vs. /chant/712336
- NewCantus: Django stores Chants, Sequences, Sources, Articles, etc. in separate tables

Nodes and redirects

- NewCantus solution: new objects numbered from 1,000,000
- User tries to visit https://cantusdatabase.org/node/number:
  - number < 1,000,000: attempt to redirect
  - number >= 1,000,000: 404 Not Found

Users and Indexers

- OldCantus: two different objects to represent a person: User and Indexer
  - User: can log in to site
  - Indexer: used to recognize contributions to Cantus Database
- NewCantus: one type of object: User. User has boolean property `is_indexer`

Merging Indexers and Users

User

- name: Debra Lacoste
- id: 123
- created: Source 1
- email: debra.lacoste@example.com

Indexer

- name: Debra Lacoste
- id: 789
- indexed: Source 2, Source 3

Merging Indexers and Users

User

- name: Debra Lacoste
- id: 123
- old_indexer_id: 789
- created: Source 1
- indexed: Source 2, Source 3
- email: debra.lacoste@example.com
- is_indexer: True

Creating new users for Indexers

Indexer

- name: John Prester
- id: 456
- indexed: Source 4, Source 5, Source 6

Creating new users for Indexers

User

- name: John Prester
- id: 456
- indexed: Source 4, Source 5, Source 6
- email: e3c0dc2c@fakeemail.com
- is_indexer: True

Thank You!

Debra Lacoste, debra.lacoste@dal.ca
Jacob deGroot-Maggetti, jacob.degroot-maggetti@mail.mcgill.ca

SIMSSA | Single Interface for Music Score Searching and Analysis

DDMAL Distributed Digital Music Archives & Libraries Lab

McGill | Schulich School of Music / École de musique Schulich

CIRMMT Centre for Interdisciplinary Research in Music Media and Technology

CANTUS: A Database for Latin Ecclesiastical Chant

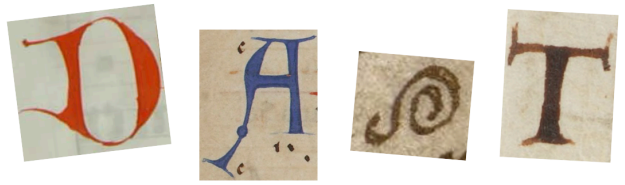
Fonds de recherche Société et culture Québec

Digital Research Alliance of Canada | Alliance de recherche numérique du Canada

SSHRC CRSH
Social Sciences and Humanities Research Council
Conseil de recherches en sciences humaines
895-2023-1002

ACENET accelerate discovery

Calcul Québec



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https://dact-chant.ca

Dalhousie University

University of Waterloo

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