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# Purchasing Patterns by Genre

— *University Musical Society Project* —  
5/12/2016

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# Key Questions

- How do purchasing patterns vary across genres?
- Can we extract information about genre by looking at descriptions?
- What do subscriptions tell us about genre loyalty?

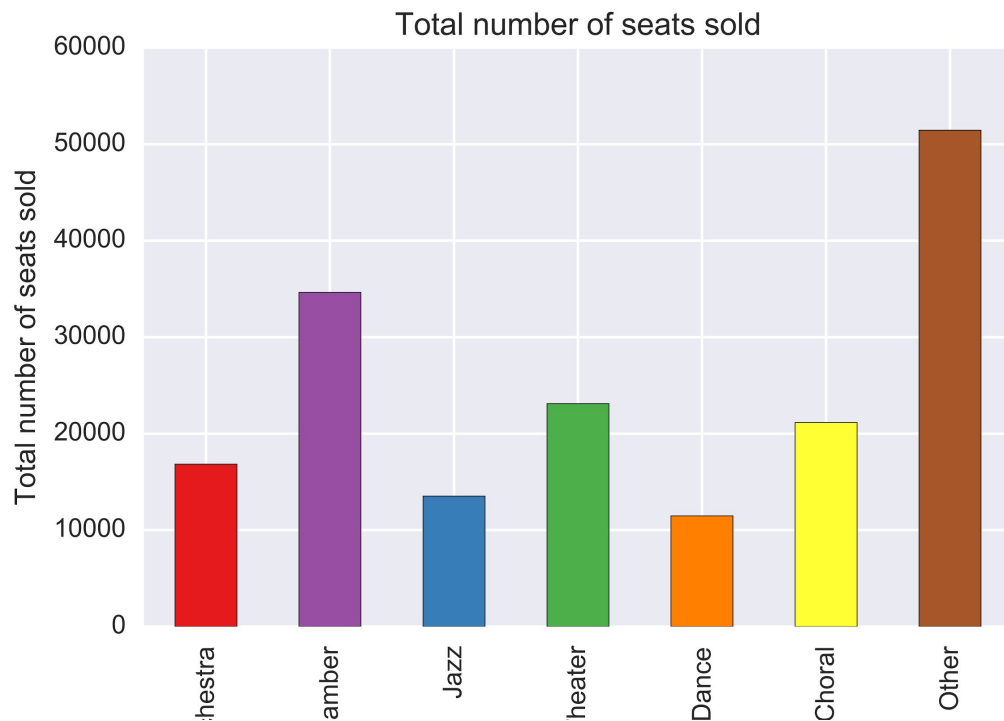
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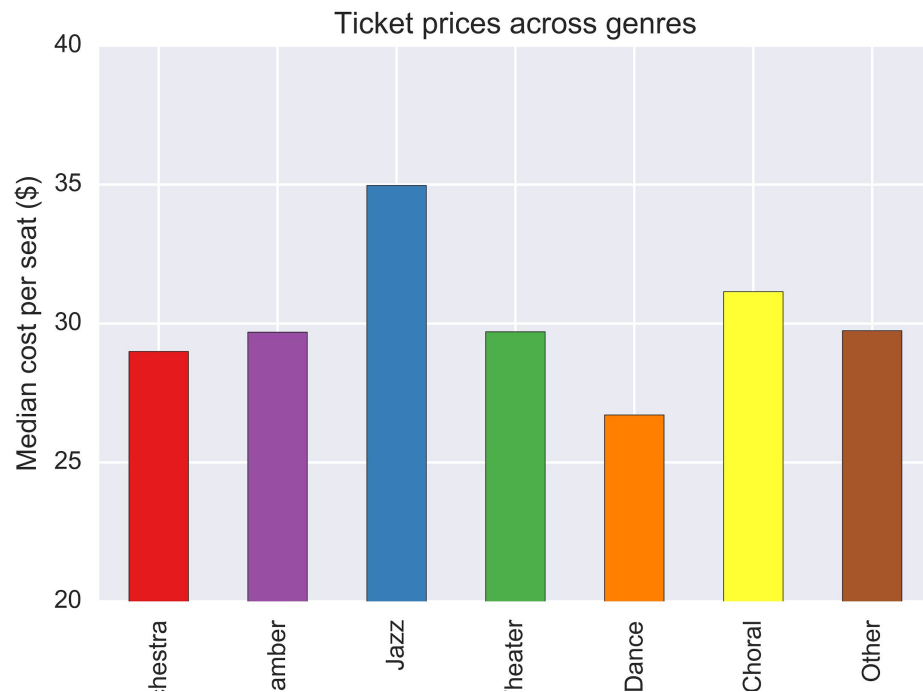
# Genres

- Orchestra *large classical ensembles*
- Chamber *small classical ensembles and soloists*
- Jazz *jazz ensembles*
- Theater *plays and musicals*
- Dance *choreographed dance shows*
- Choral *primarily vocal ensembles*
- Other *modern and world music, comedians, magicians, etc.*

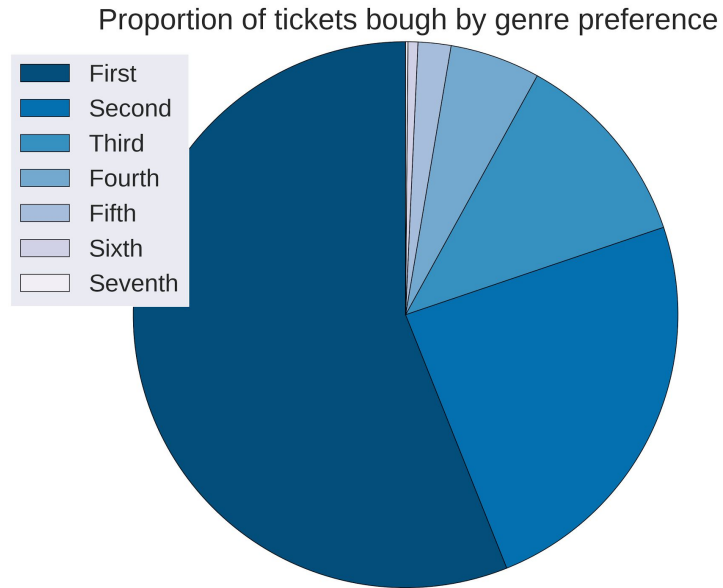
# Genre Popularity



# Genre Ticket Prices

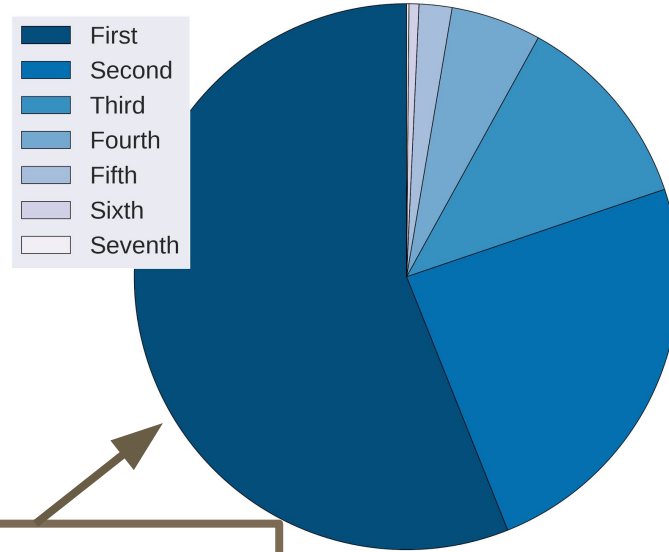


# Genre Preferences



# Genre Preferences

Proportion of tickets bought by genre preference

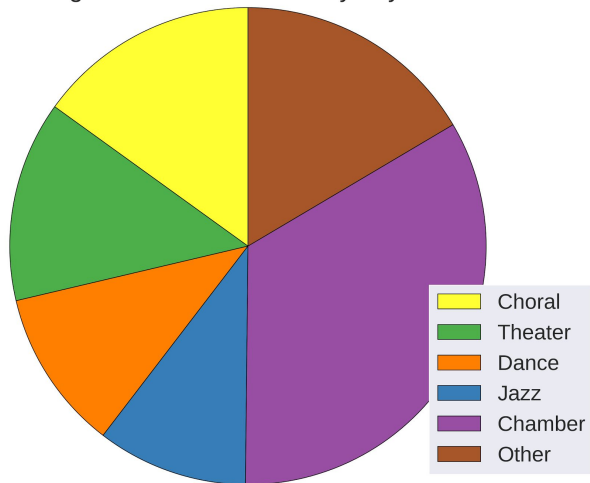


Over 50% of purchases are made in the person's preferred genre

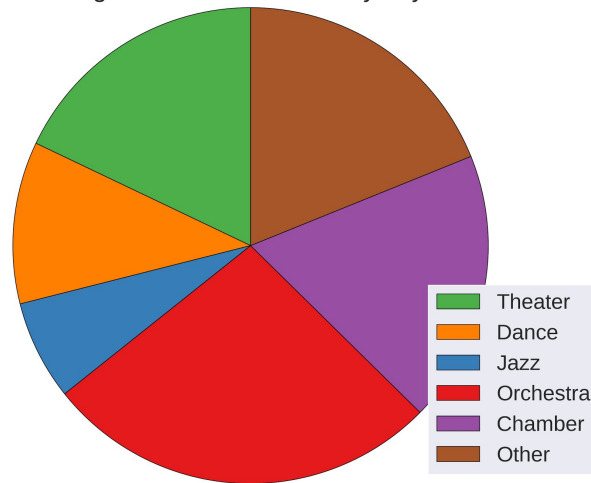


# Likes and dislikes

Ticket percentages for those who mainly buy Orchestra tickets

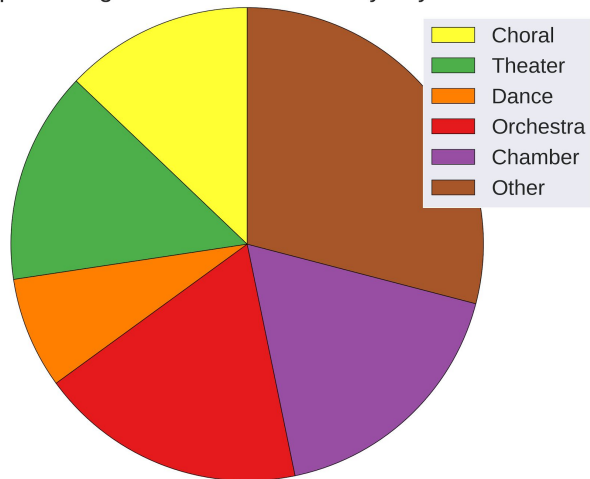


Ticket percentages for those who mainly buy Choral tickets

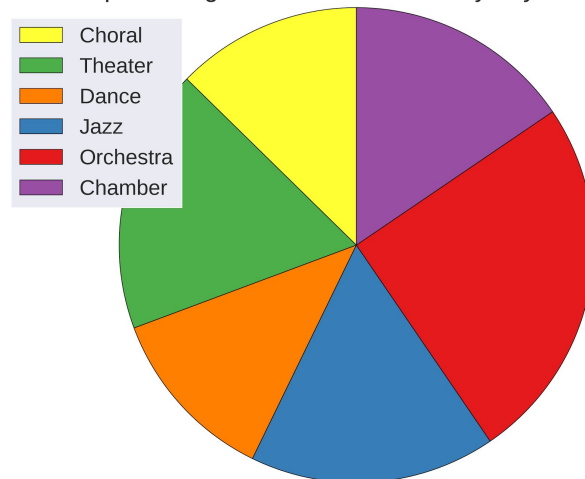


# Likes and dislikes

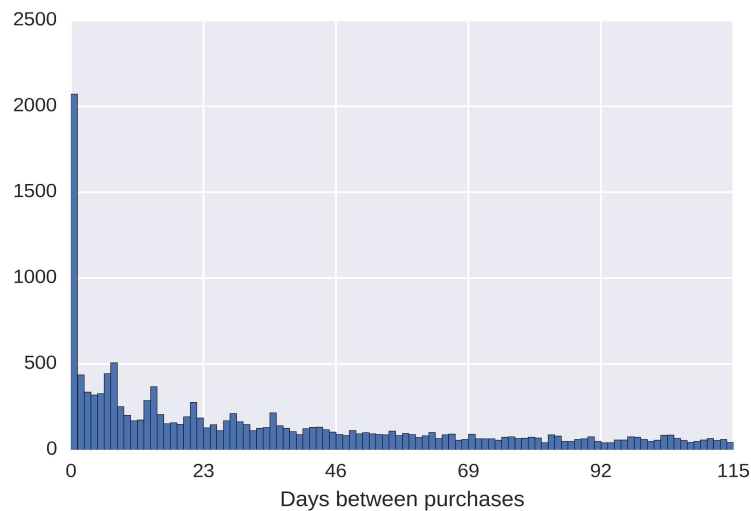
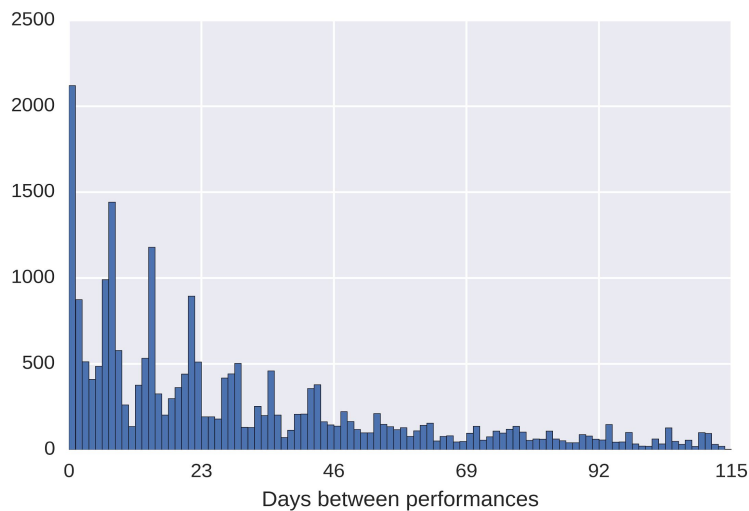
Ticket percentages for those who mainly buy Jazz tickets



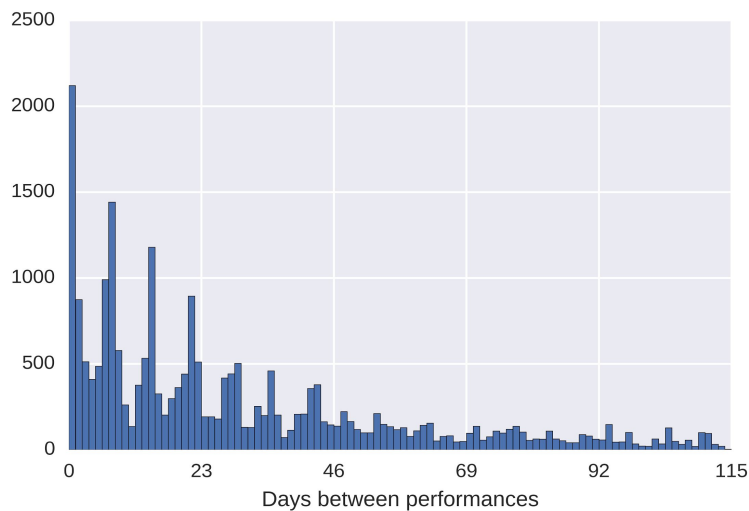
Ticket percentages for those who mainly buy Other tickets



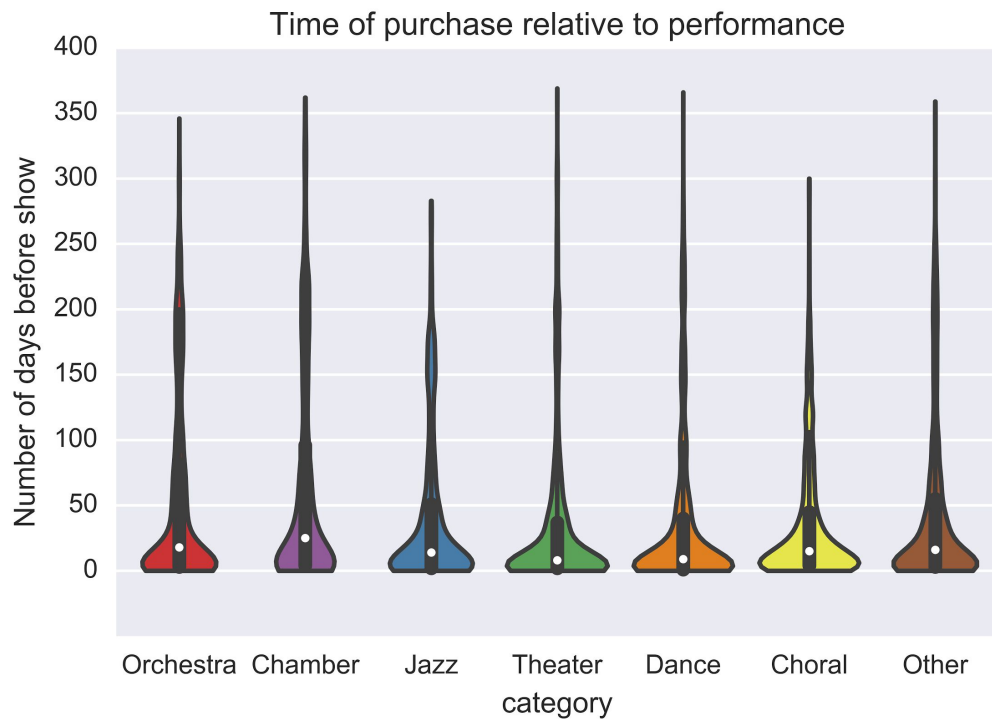
# Viewing and purchasing timelines



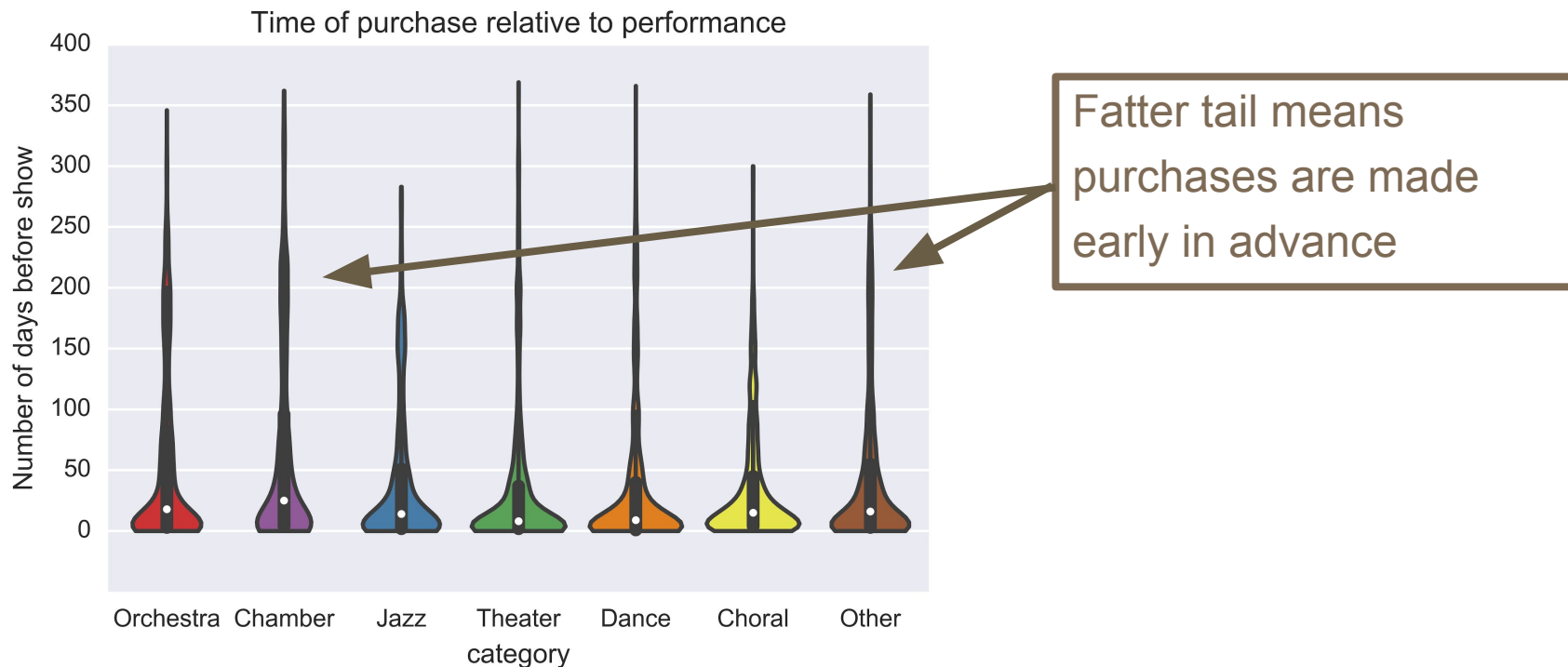
# Viewing and purchasing timelines



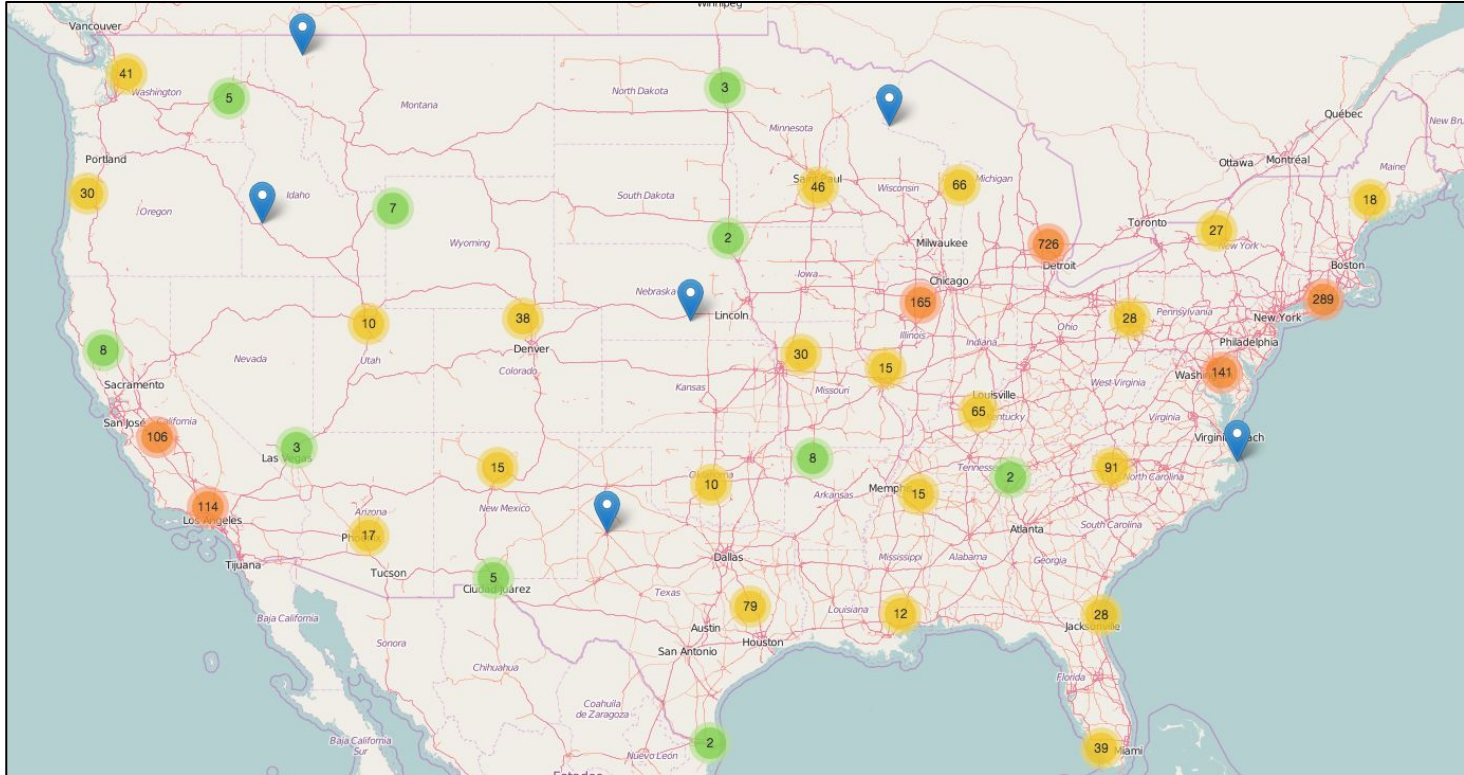
# Time of purchase for different genres



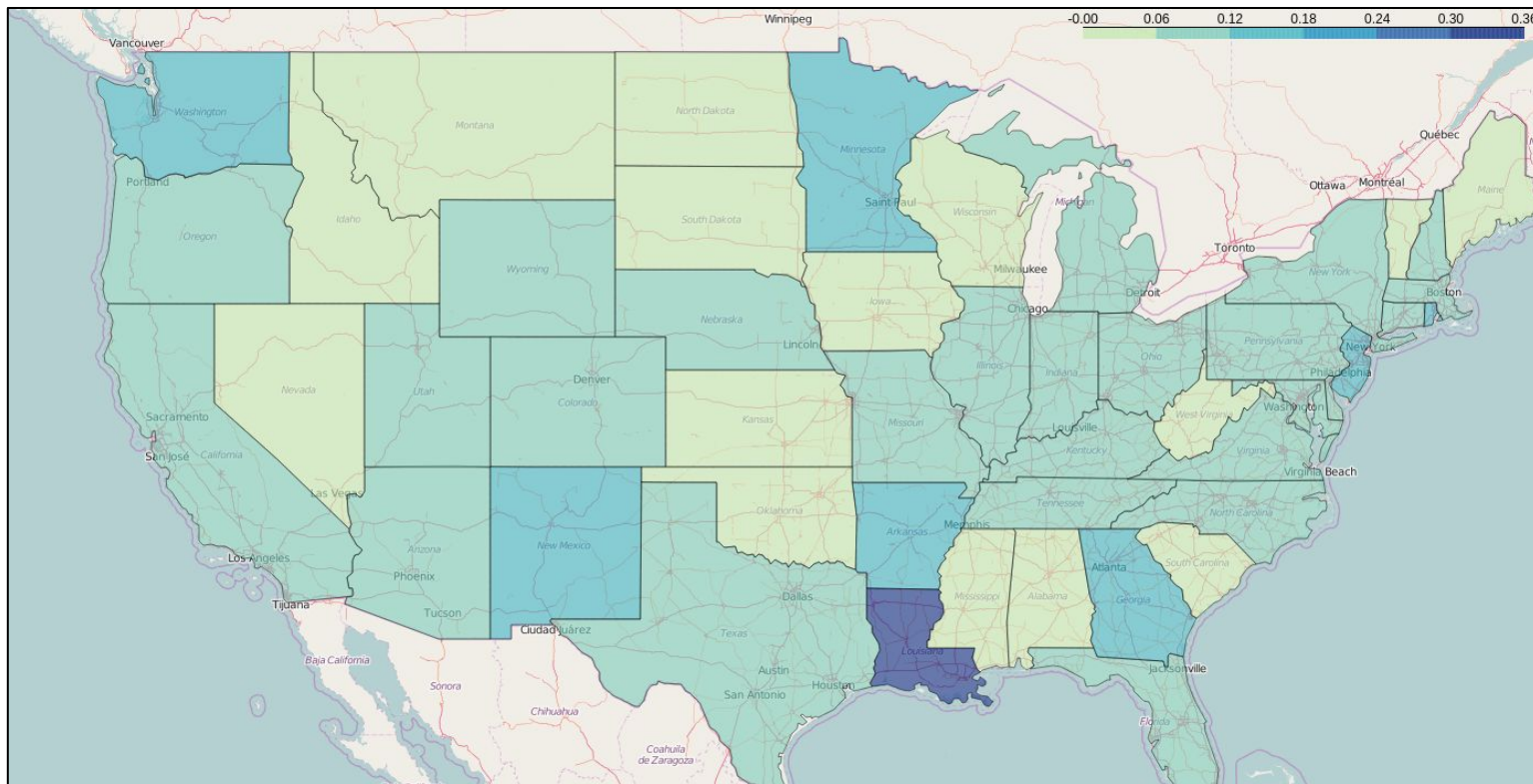
# Time of purchase for different genres



# Where do customers come from?

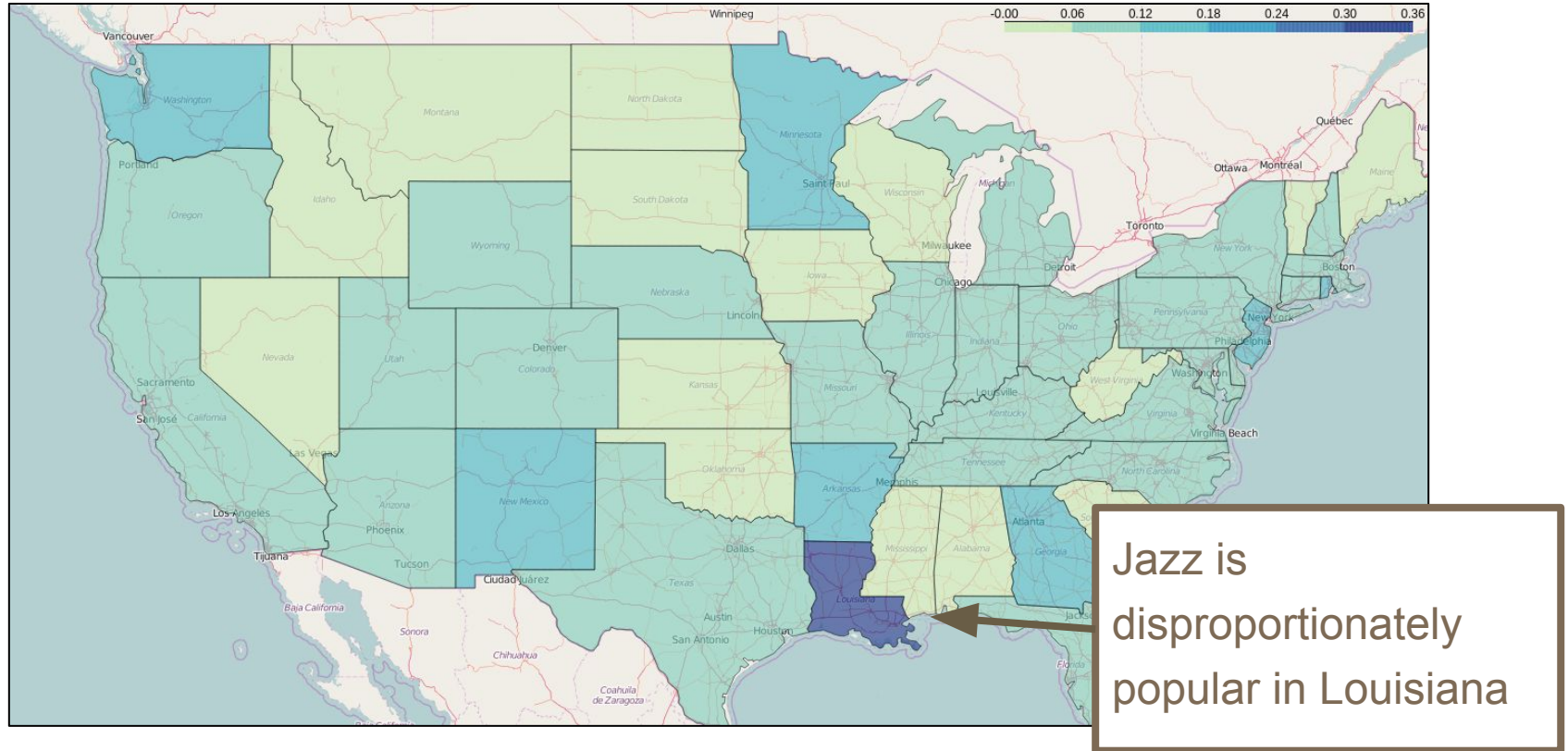


# Fraction of Jazz Ticket Purchases





# Fraction of Jazz Ticket Purchases



# Purchasing Patterns Across Genres

Different genres show interesting trends in:

- Average ticket price and total revenue
- Genre loyalty & preference
- Time of purchase
- Location of purchaser

# Key Questions

- How do purchasing patterns vary across genres?
- **Can we extract information about genre by looking at descriptions?**
- What do subscriptions tell us about genre loyalty?

# What else do we know about shows?

Sir András Schiff, piano: The Last Sonatas of Haydn, Mozart, Beethoven, and Schubert

Saturday, February 20, 2016 8:00PM  
Hill Auditorium



After his stunning performance of Bach's Goldberg Variations and Beethoven's Diabelli Variations two seasons ago, Sir András Schiff returns with a project called "The Last Sonatas."

Performed over the course of a week, this mini-festival includes the final three sonatas of Haydn, Mozart, Beethoven, and Schubert.

**Program (Sat 2/20: Hill Auditorium)**

Haydn - Sonata No. 62 in E-flat major, Hob. XVI:52

Beethoven - Sonata No. 32 in c minor, Op. 111

Mozart - Sonata No. 18 in D Major, K. 576

Schubert Sonata in B-flat Major, D. 960

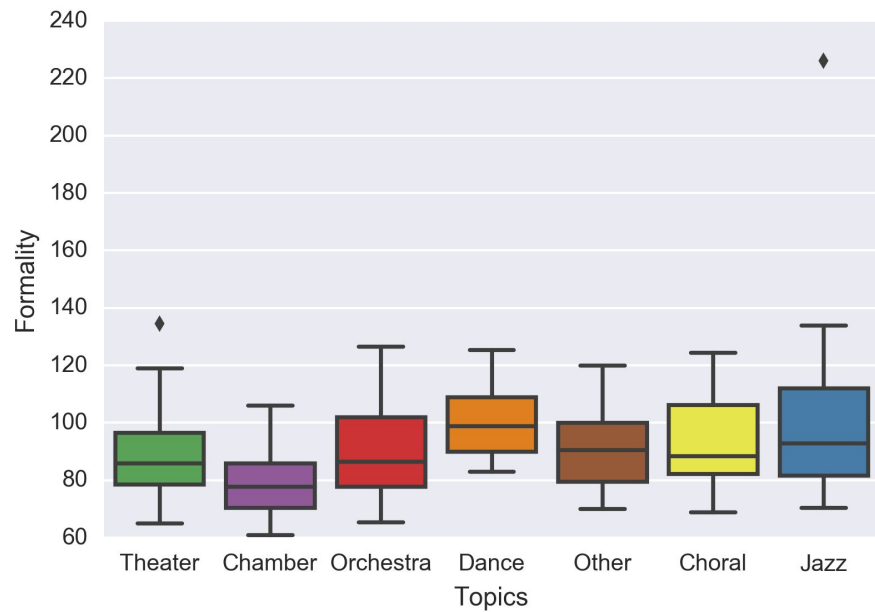
Would you like to attend all three performances by Sir Andras Schiff and save?  
Of course you do!

# Do show descriptions influence sales?

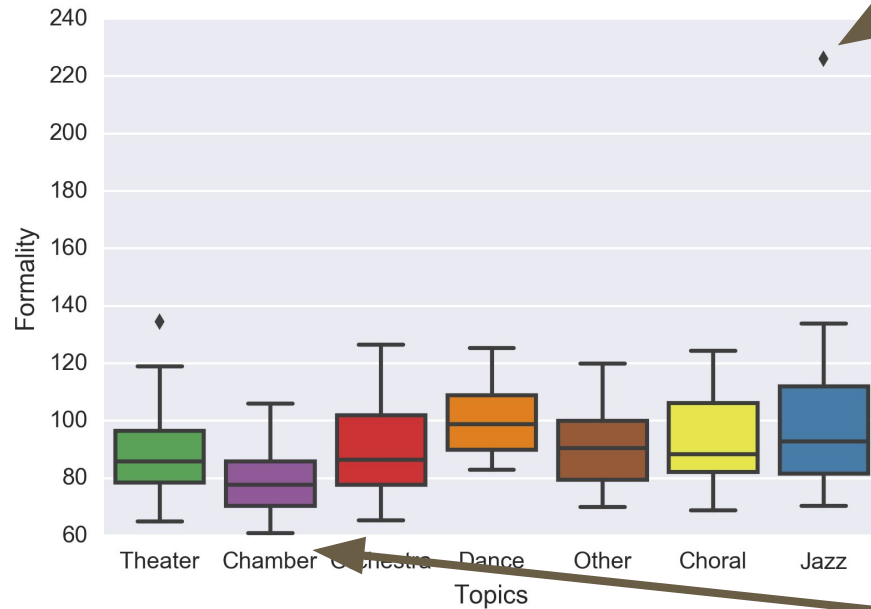
The Akademie für Alte Musik Berlin began as a courageous display of musical sovereignty against the East German socialist regime and now, some 30 years later, enjoys recognition as one of Europe's greatest musical success stories...

Often referred to as a “poet of the violin,” Joshua Bell enchants audiences with his breathtaking virtuosity, sheer beauty, and charismatic stage presence....

# Formality



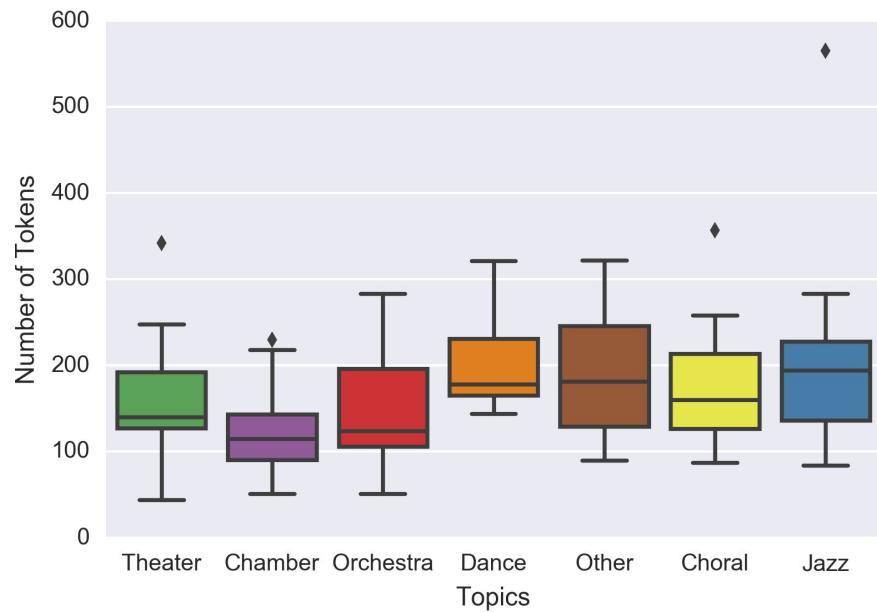
# Formality



...Jazz at Lincoln Center educational programs reach over 110,000 students, teachers, and general audience members. Under Music Director Wynton Marsalis, the Jazz at Lincoln Center Orchestra spends over a third of the year on tour...

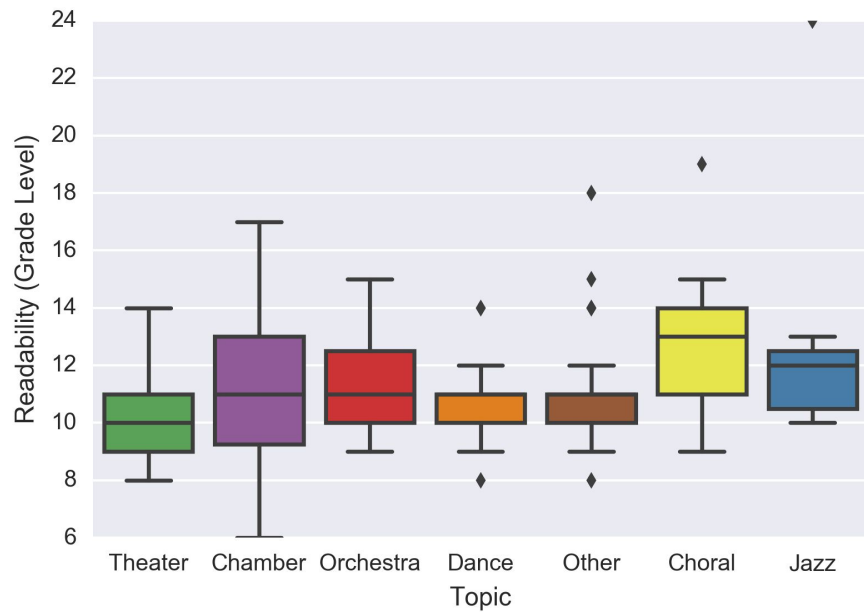
...An absolute triumph. Their playing has everything you could possibly wish for...

# Length of Description

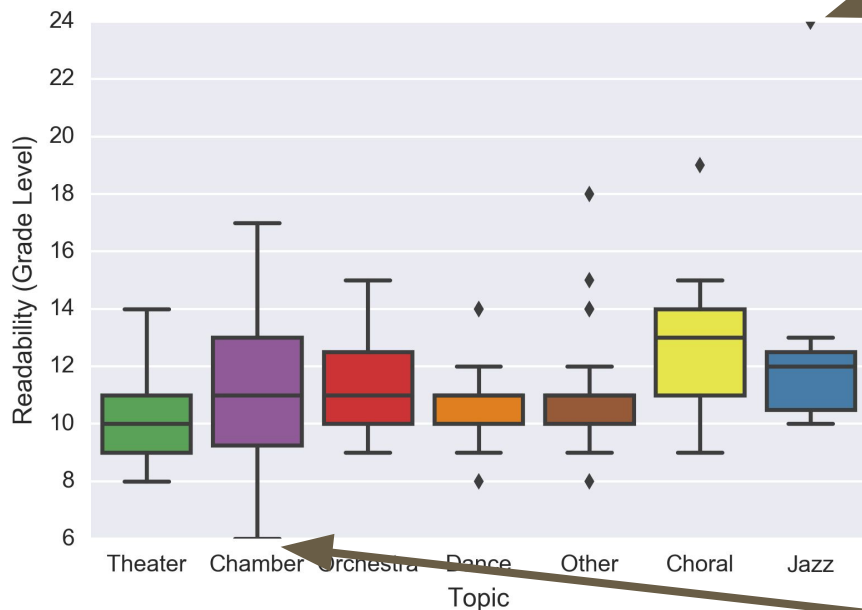




# Readability



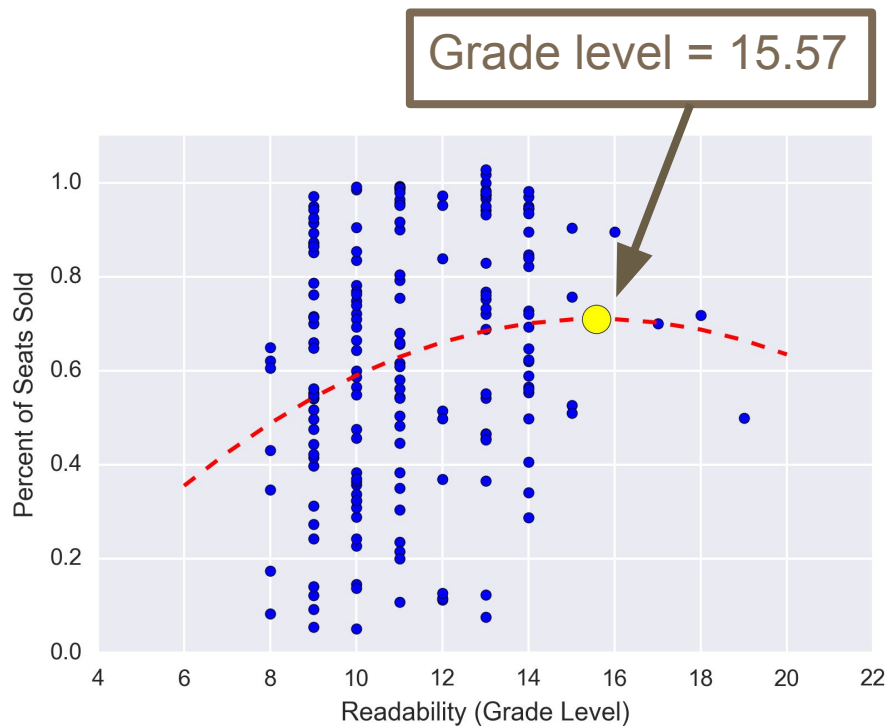
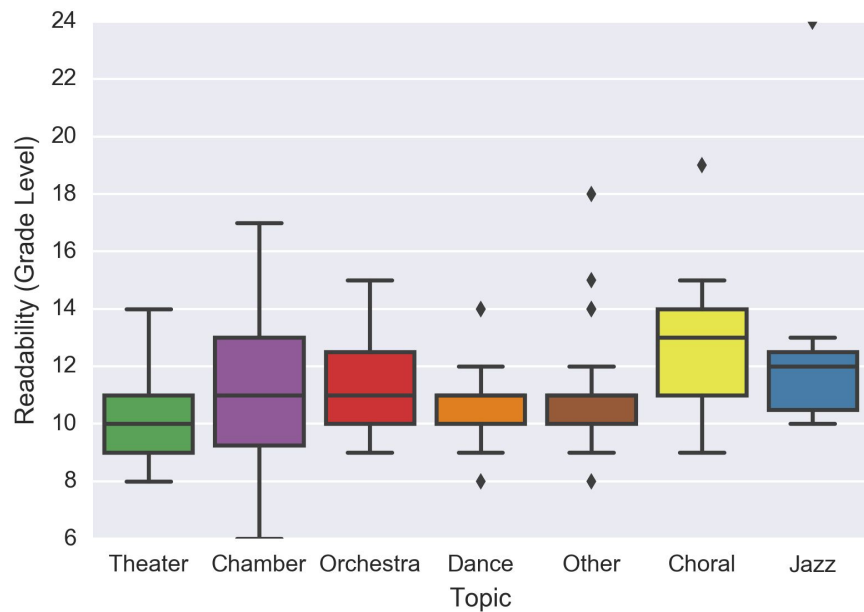
# Readability



...Fred Hersch balances his internationally recognized instrumental and improvisational skills with significant achievements as a composer, bandleader, and theatrical conceptualist...

...We are delighted to be able to bring Ms. Kern to Ann Arbor. Ms. Kern is giving two sold-out concerts...

# Readability



# Discovering Categories from Descriptions

Can we identify different genres from their descriptions?

Ongoing challenges:

- Not enough textual data
- Need more information about performers and and composers
- **Work in progress: scrape information from the web**

# Scraping Information from the Web

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Would you like to attend all three performances by Sir Andras Schiff and save?  
Of course you do!



## Sir András Schiff

Piano, Conductor | North American Representation, Public Relations

### ABOUT

Awarded Knighthood by Her Majesty Queen Elizabeth II in June 2014, Sir András Schiff is world-renowned and critically acclaimed as a pianist, conductor, pedagogue and lecturer.

### MORE...

Posted: Oct-27-2015

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## András Schiff

From Wikipedia, the free encyclopedia

**Sir András Schiff** (Hungarian pronunciation: [ˈɒndrɒʃ ˈʃiʃ]; born 21 December 1953) is a Hungarian pianist, conductor, and pedagogue. He has received numerous major awards and honors, including the Grammy Award, Gramophone Prize, and was knighted by Queen Elizabeth II in her 2014 Birthday Honours for services to music and movements in Hungary and Austria.

### Contents [hide]

- Biography
- Awards and honours
- Political views
  - Austria
  - Hungary
- References
- External links

## Biography [ edit ]

Schiff was born in Budapest into a Jewish family, the only child of two Holocaust survivors,<sup>[1]</sup> Elisabeth Vadász, then with Pál Kadosa and Ferenc Rados, of whom Schiff said, "There was a great deal of Jewish suffering and death in my family."

# Key Questions

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- **What do subscriptions tell us about genre loyalty?**

# Subscription Retention

- Customers who buy subscription tickets tend to renew their subscriptions.

Subscription to Same Series (2013)	Subscription in 2012	
	Count	Pct
No	154	17%
Yes	730	83%

- Customers who buy subscription tickets are more likely to buy subscriptions to new series.

Subscription to New Series (2013)	Subscription in 2012	
	No	Yes
No	25,041	852
Yes	108	36
New Subscribers	0.43%	4.05%

# Subscription Marketing

- Find non-subscription customers who watched the majority of a given series
- Market a similar series to them in the following year

Percent of Series Watched	Number of Non-Subscription Customers
50%	178
60%	150
70%	71
80%	65
90%	26
100%	12



# Genres and Subscriptions

- Genres and subscription series are highly related
- Can we market better to subscribers based on genre knowledge?

Subscription Series	Corresponding Genres
Choral Union	Orchestra (50%), Chamber (30%)
Chamber Arts	Chamber (85%)
Dance Series	Dance (100%)
Theater Series	Theater (80%), Other (20%)
Jazz Series	Jazz (100%)

# Conclusions

- Different genres have distinct purchasing trends
  - Location
  - Time of purchase
  - Etc.
- Descriptions give us predictive information about new shows
  - Formality
  - Readability
  - In progress: identify genre based on description
- Subscribers are loyal
  - Match genres to subscriptions for marketing insight

# Our Team

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- Xinyu Tan\*
- Laura Wendlandt\*
- Kevin Sung
- Lisa Jin
- Anthony Kremin
- Alexander Zaitzeff
- Mingzhi Cao

*\* presented today*