

Recommend Taylor  
Swift Song from Topics

# *Problem Statement*

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- What are the topics she address?
- How have they changed as her style transitions from country to pop?



# *Variables & Observations*

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**Artist**

**Album**

**Track Title**

**Lyric**

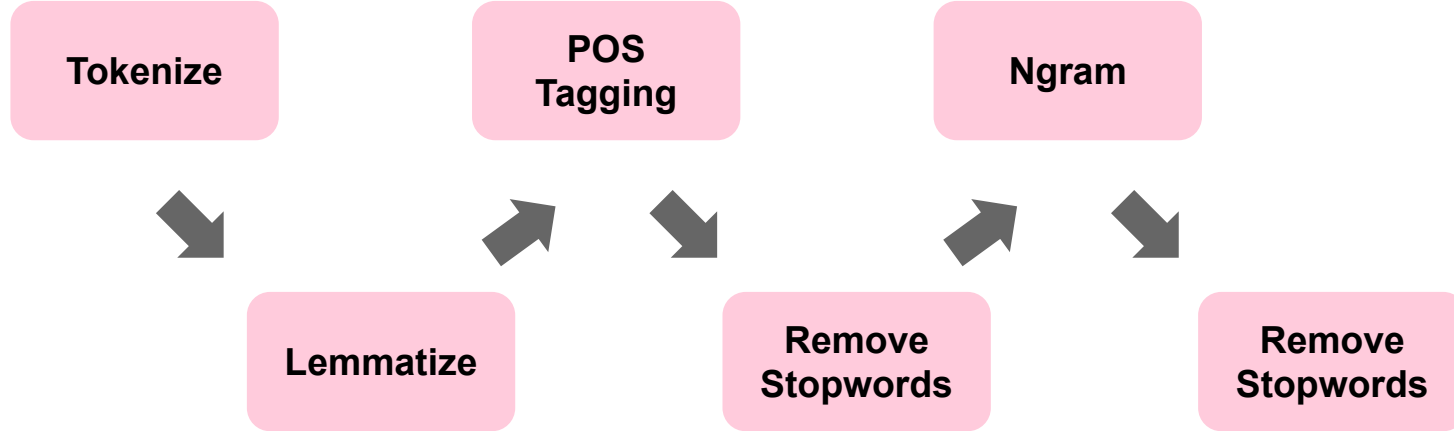
**Year**

**&**

**94 songs!**

# *Data Cleaning*

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# *Topic Modeling (LDA)*

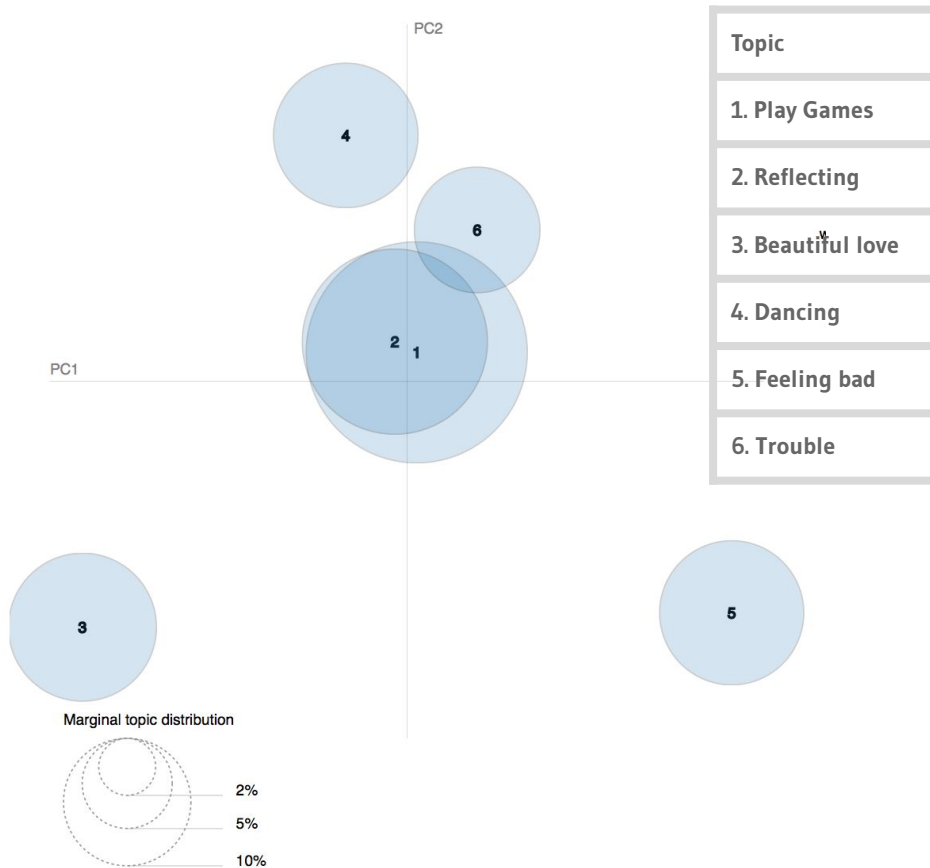
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Topic	Top Words
1. Play Games	think, wan, end, hold, <b>game</b> , <b>big</b> , night, aah, gorgeous, day
2. Reflecting	<b>know</b> , <b>time</b> , stay, <b>look</b> , love, wish, got, <b>better</b> , want, <b>think</b>
3. Beautiful love	said, know, time, <b>delicate</b> , <b>love</b> , want, dress, <b>beautiful</b> , take, mon
4. Dancing	<b>shake</b> , new, love, gon, york, <b>dancing</b> , welcome, time, girl, hand
5. Feeling bad	know, got, baby, thing, <b>bad</b> , <b>feel</b> , tell, come, night, said
6. Trouble	ooh, want, wood, <b>clear</b> , time, <b>trouble</b> , <b>mean</b> , got, waiting, call

# *Topic Visualization*

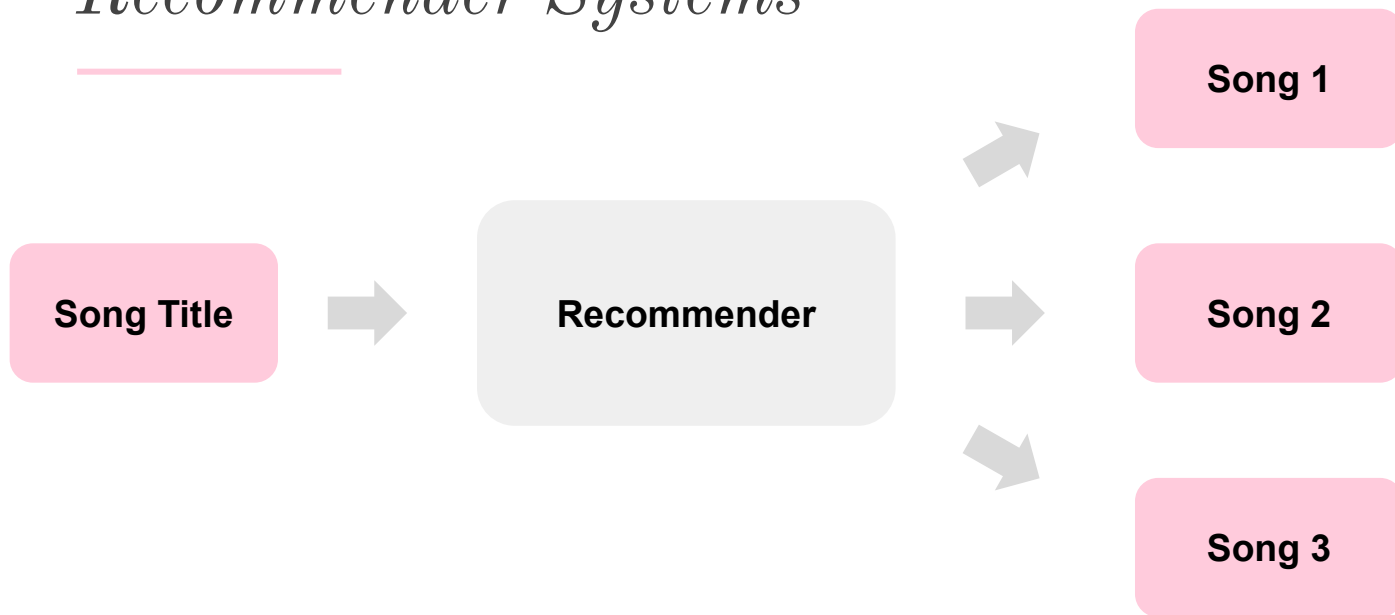
- Topics 1 & 2 overlap a lot
- Topics 3 & 5 are very different

Intertopic Distance Map (via multidimensional scaling)



# *Recommender Systems*

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# *Song Recommendation Example*

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**Topic: Dancing**

**Bad Blood**



**Recommender**



**Shake It Off**

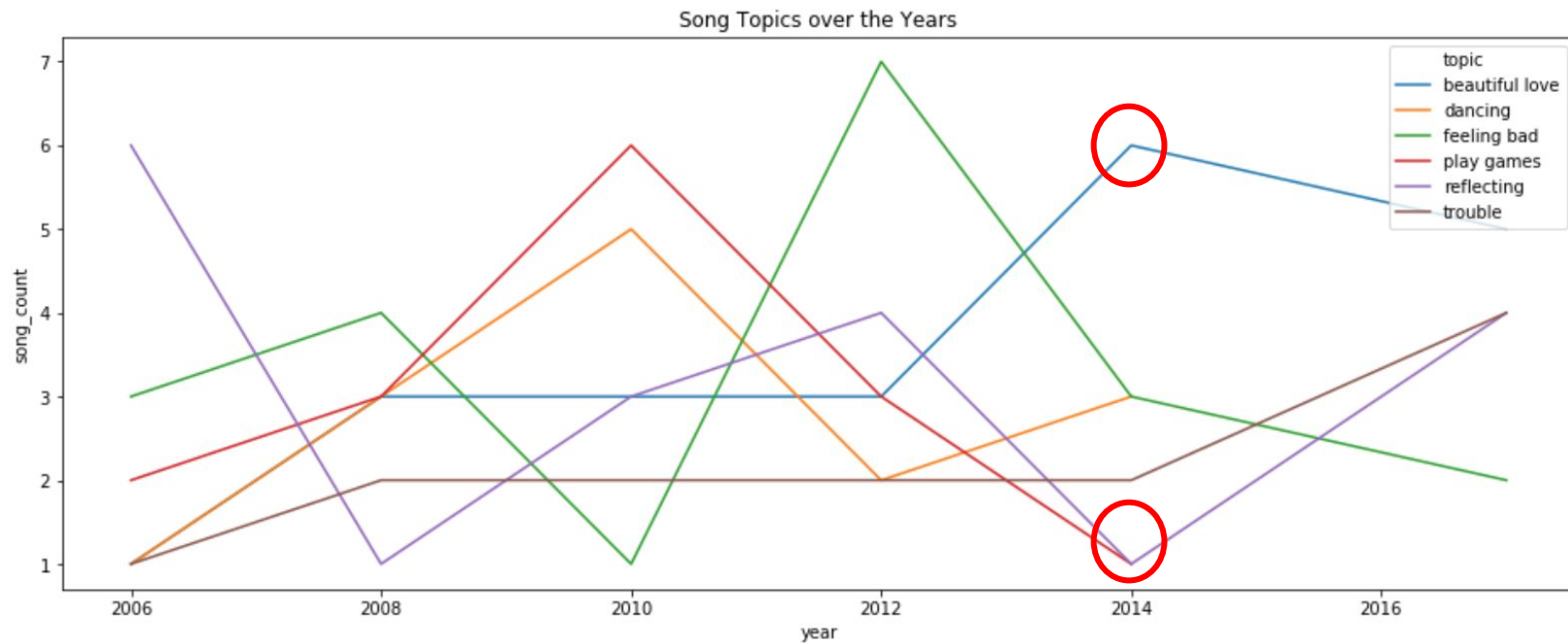
**Welcome to New  
York**

**The Moment I Knew**



# Results

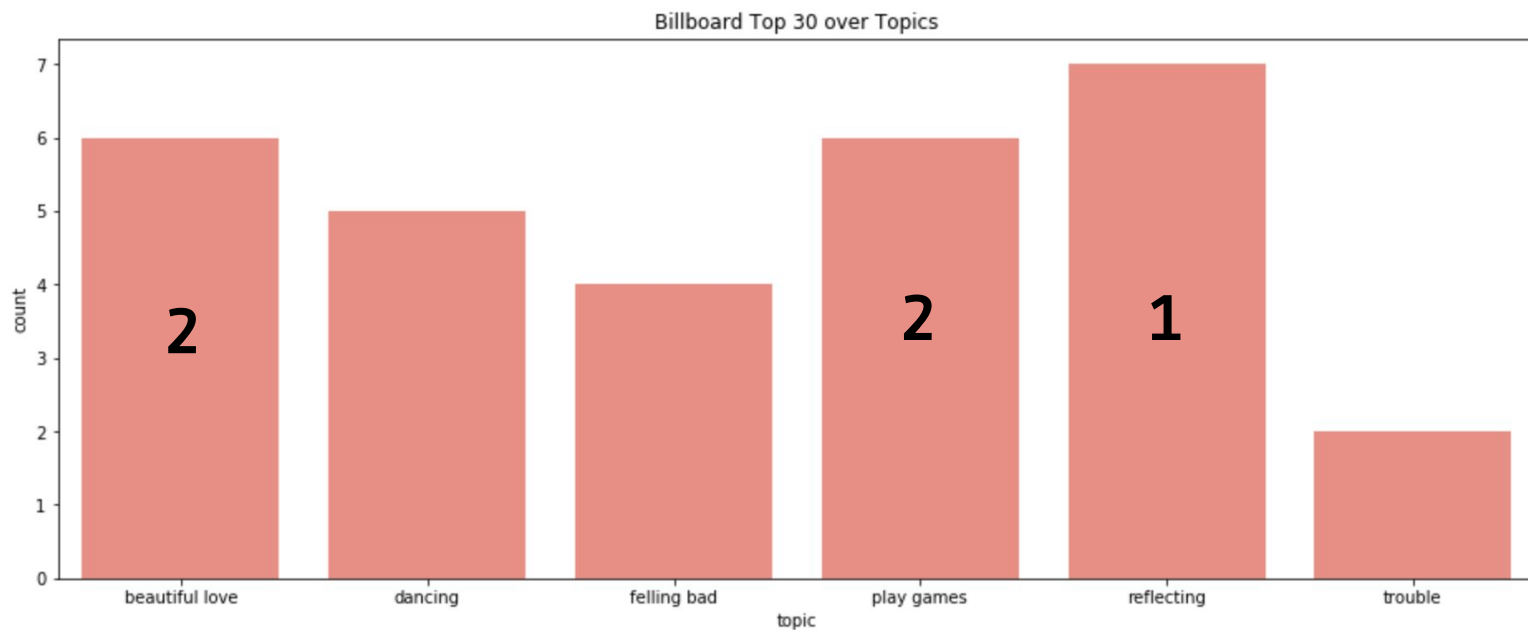
2014 was her 1st Full Pop Album '1989'



# Results

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**Top Topics:  
Reflecting, Play Games & Beautiful Love**



## *Next Steps*

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- Get song data from recent years
- Gather listener data to build a user/item based CF



# *Connect with me*

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