package com.twitter.timelines.prediction.common.aggregates

import com.twitter.ml.api.Feature

import com.twitter.timelines.prediction.features.common.TimelinesSharedFeatures

import com.twitter.timelines.prediction.features.engagement\_features.EngagementDataRecordFeatures

import com.twitter.timelines.prediction.features.real\_graph.RealGraphDataRecordFeatures

import com.twitter.timelines.prediction.features.recap.RecapFeatures

import com.twitter.timelines.prediction.features.time\_features.TimeDataRecordFeatures

object RecapUserFeatureAggregation {

val RecapFeaturesForAggregation: Set[Feature[\_]] =

Set(

RecapFeatures.HAS\_IMAGE,

RecapFeatures.HAS\_VIDEO,

RecapFeatures.FROM\_MUTUAL\_FOLLOW,

RecapFeatures.HAS\_CARD,

RecapFeatures.HAS\_NEWS,

RecapFeatures.REPLY\_COUNT,

RecapFeatures.FAV\_COUNT,

RecapFeatures.RETWEET\_COUNT,

RecapFeatures.BLENDER\_SCORE,

RecapFeatures.CONVERSATIONAL\_COUNT,

RecapFeatures.IS\_BUSINESS\_SCORE,

RecapFeatures.CONTAINS\_MEDIA,

RecapFeatures.RETWEET\_SEARCHER,

RecapFeatures.REPLY\_SEARCHER,

RecapFeatures.MENTION\_SEARCHER,

RecapFeatures.REPLY\_OTHER,

RecapFeatures.RETWEET\_OTHER,

RecapFeatures.MATCH\_UI\_LANG,

RecapFeatures.MATCH\_SEARCHER\_MAIN\_LANG,

RecapFeatures.MATCH\_SEARCHER\_LANGS,

RecapFeatures.TWEET\_COUNT\_FROM\_USER\_IN\_SNAPSHOT,

RecapFeatures.TEXT\_SCORE,

RealGraphDataRecordFeatures.NUM\_RETWEETS\_EWMA,

RealGraphDataRecordFeatures.NUM\_RETWEETS\_NON\_ZERO\_DAYS,

RealGraphDataRecordFeatures.NUM\_RETWEETS\_ELAPSED\_DAYS,

RealGraphDataRecordFeatures.NUM\_RETWEETS\_DAYS\_SINCE\_LAST,

RealGraphDataRecordFeatures.NUM\_FAVORITES\_EWMA,

RealGraphDataRecordFeatures.NUM\_FAVORITES\_NON\_ZERO\_DAYS,

RealGraphDataRecordFeatures.NUM\_FAVORITES\_ELAPSED\_DAYS,

RealGraphDataRecordFeatures.NUM\_FAVORITES\_DAYS\_SINCE\_LAST,

RealGraphDataRecordFeatures.NUM\_MENTIONS\_EWMA,

RealGraphDataRecordFeatures.NUM\_MENTIONS\_NON\_ZERO\_DAYS,

RealGraphDataRecordFeatures.NUM\_MENTIONS\_ELAPSED\_DAYS,

RealGraphDataRecordFeatures.NUM\_MENTIONS\_DAYS\_SINCE\_LAST,

RealGraphDataRecordFeatures.NUM\_TWEET\_CLICKS\_EWMA,

RealGraphDataRecordFeatures.NUM\_TWEET\_CLICKS\_NON\_ZERO\_DAYS,

RealGraphDataRecordFeatures.NUM\_TWEET\_CLICKS\_ELAPSED\_DAYS,

RealGraphDataRecordFeatures.NUM\_TWEET\_CLICKS\_DAYS\_SINCE\_LAST,

RealGraphDataRecordFeatures.NUM\_PROFILE\_VIEWS\_EWMA,

RealGraphDataRecordFeatures.NUM\_PROFILE\_VIEWS\_NON\_ZERO\_DAYS,

RealGraphDataRecordFeatures.NUM\_PROFILE\_VIEWS\_ELAPSED\_DAYS,

RealGraphDataRecordFeatures.NUM\_PROFILE\_VIEWS\_DAYS\_SINCE\_LAST,

RealGraphDataRecordFeatures.TOTAL\_DWELL\_TIME\_EWMA,

RealGraphDataRecordFeatures.TOTAL\_DWELL\_TIME\_NON\_ZERO\_DAYS,

RealGraphDataRecordFeatures.TOTAL\_DWELL\_TIME\_ELAPSED\_DAYS,

RealGraphDataRecordFeatures.TOTAL\_DWELL\_TIME\_DAYS\_SINCE\_LAST,

RealGraphDataRecordFeatures.NUM\_INSPECTED\_TWEETS\_EWMA,

RealGraphDataRecordFeatures.NUM\_INSPECTED\_TWEETS\_NON\_ZERO\_DAYS,

RealGraphDataRecordFeatures.NUM\_INSPECTED\_TWEETS\_ELAPSED\_DAYS,

RealGraphDataRecordFeatures.NUM\_INSPECTED\_TWEETS\_DAYS\_SINCE\_LAST

)

val RecapLabelsForAggregation: Set[Feature.Binary] =

Set(

RecapFeatures.IS\_FAVORITED,

RecapFeatures.IS\_RETWEETED,

RecapFeatures.IS\_CLICKED,

RecapFeatures.IS\_PROFILE\_CLICKED,

RecapFeatures.IS\_OPEN\_LINKED

)

val DwellDuration: Set[Feature[\_]] =

Set(

TimelinesSharedFeatures.DWELL\_TIME\_MS,

)

val UserFeaturesV2: Set[Feature[\_]] = RecapFeaturesForAggregation ++ Set(

RecapFeatures.HAS\_VINE,

RecapFeatures.HAS\_PERISCOPE,

RecapFeatures.HAS\_PRO\_VIDEO,

RecapFeatures.HAS\_VISIBLE\_LINK,

RecapFeatures.BIDIRECTIONAL\_FAV\_COUNT,

RecapFeatures.UNIDIRECTIONAL\_FAV\_COUNT,

RecapFeatures.BIDIRECTIONAL\_REPLY\_COUNT,

RecapFeatures.UNIDIRECTIONAL\_REPLY\_COUNT,

RecapFeatures.BIDIRECTIONAL\_RETWEET\_COUNT,

RecapFeatures.UNIDIRECTIONAL\_RETWEET\_COUNT,

RecapFeatures.EMBEDS\_URL\_COUNT,

RecapFeatures.EMBEDS\_IMPRESSION\_COUNT,

RecapFeatures.VIDEO\_VIEW\_COUNT,

RecapFeatures.IS\_RETWEET,

RecapFeatures.IS\_REPLY,

RecapFeatures.IS\_EXTENDED\_REPLY,

RecapFeatures.HAS\_LINK,

RecapFeatures.HAS\_TREND,

RecapFeatures.LINK\_LANGUAGE,

RecapFeatures.NUM\_HASHTAGS,

RecapFeatures.NUM\_MENTIONS,

RecapFeatures.IS\_SENSITIVE,

RecapFeatures.HAS\_MULTIPLE\_MEDIA,

RecapFeatures.USER\_REP,

RecapFeatures.FAV\_COUNT\_V2,

RecapFeatures.RETWEET\_COUNT\_V2,

RecapFeatures.REPLY\_COUNT\_V2,

RecapFeatures.LINK\_COUNT,

EngagementDataRecordFeatures.InNetworkFavoritesCount,

EngagementDataRecordFeatures.InNetworkRetweetsCount,

EngagementDataRecordFeatures.InNetworkRepliesCount

)

val UserAuthorFeaturesV2: Set[Feature[\_]] = Set(

RecapFeatures.HAS\_IMAGE,

RecapFeatures.HAS\_VINE,

RecapFeatures.HAS\_PERISCOPE,

RecapFeatures.HAS\_PRO\_VIDEO,

RecapFeatures.HAS\_VIDEO,

RecapFeatures.HAS\_CARD,

RecapFeatures.HAS\_NEWS,

RecapFeatures.HAS\_VISIBLE\_LINK,

RecapFeatures.REPLY\_COUNT,

RecapFeatures.FAV\_COUNT,

RecapFeatures.RETWEET\_COUNT,

RecapFeatures.BLENDER\_SCORE,

RecapFeatures.CONVERSATIONAL\_COUNT,

RecapFeatures.IS\_BUSINESS\_SCORE,

RecapFeatures.CONTAINS\_MEDIA,

RecapFeatures.RETWEET\_SEARCHER,

RecapFeatures.REPLY\_SEARCHER,

RecapFeatures.MENTION\_SEARCHER,

RecapFeatures.REPLY\_OTHER,

RecapFeatures.RETWEET\_OTHER,

RecapFeatures.MATCH\_UI\_LANG,

RecapFeatures.MATCH\_SEARCHER\_MAIN\_LANG,

RecapFeatures.MATCH\_SEARCHER\_LANGS,

RecapFeatures.TWEET\_COUNT\_FROM\_USER\_IN\_SNAPSHOT,

RecapFeatures.TEXT\_SCORE,

RecapFeatures.BIDIRECTIONAL\_FAV\_COUNT,

RecapFeatures.UNIDIRECTIONAL\_FAV\_COUNT,

RecapFeatures.BIDIRECTIONAL\_REPLY\_COUNT,

RecapFeatures.UNIDIRECTIONAL\_REPLY\_COUNT,

RecapFeatures.BIDIRECTIONAL\_RETWEET\_COUNT,

RecapFeatures.UNIDIRECTIONAL\_RETWEET\_COUNT,

RecapFeatures.EMBEDS\_URL\_COUNT,

RecapFeatures.EMBEDS\_IMPRESSION\_COUNT,

RecapFeatures.VIDEO\_VIEW\_COUNT,

RecapFeatures.IS\_RETWEET,

RecapFeatures.IS\_REPLY,

RecapFeatures.HAS\_LINK,

RecapFeatures.HAS\_TREND,

RecapFeatures.LINK\_LANGUAGE,

RecapFeatures.NUM\_HASHTAGS,

RecapFeatures.NUM\_MENTIONS,

RecapFeatures.IS\_SENSITIVE,

RecapFeatures.HAS\_MULTIPLE\_MEDIA,

RecapFeatures.FAV\_COUNT\_V2,

RecapFeatures.RETWEET\_COUNT\_V2,

RecapFeatures.REPLY\_COUNT\_V2,

RecapFeatures.LINK\_COUNT,

EngagementDataRecordFeatures.InNetworkFavoritesCount,

EngagementDataRecordFeatures.InNetworkRetweetsCount,

EngagementDataRecordFeatures.InNetworkRepliesCount

)

val UserAuthorFeaturesV2Count: Set[Feature[\_]] = Set(

RecapFeatures.HAS\_IMAGE,

RecapFeatures.HAS\_VINE,

RecapFeatures.HAS\_PERISCOPE,

RecapFeatures.HAS\_PRO\_VIDEO,

RecapFeatures.HAS\_VIDEO,

RecapFeatures.HAS\_CARD,

RecapFeatures.HAS\_NEWS,

RecapFeatures.HAS\_VISIBLE\_LINK,

RecapFeatures.FAV\_COUNT,

RecapFeatures.CONTAINS\_MEDIA,

RecapFeatures.RETWEET\_SEARCHER,

RecapFeatures.REPLY\_SEARCHER,

RecapFeatures.MENTION\_SEARCHER,

RecapFeatures.REPLY\_OTHER,

RecapFeatures.RETWEET\_OTHER,

RecapFeatures.MATCH\_UI\_LANG,

RecapFeatures.MATCH\_SEARCHER\_MAIN\_LANG,

RecapFeatures.MATCH\_SEARCHER\_LANGS,

RecapFeatures.IS\_RETWEET,

RecapFeatures.IS\_REPLY,

RecapFeatures.HAS\_LINK,

RecapFeatures.HAS\_TREND,

RecapFeatures.IS\_SENSITIVE,

RecapFeatures.HAS\_MULTIPLE\_MEDIA,

EngagementDataRecordFeatures.InNetworkFavoritesCount

)

val UserTopicFeaturesV2Count: Set[Feature[\_]] = Set(

RecapFeatures.HAS\_IMAGE,

RecapFeatures.HAS\_VIDEO,

RecapFeatures.HAS\_CARD,

RecapFeatures.HAS\_NEWS,

RecapFeatures.FAV\_COUNT,

RecapFeatures.CONTAINS\_MEDIA,

RecapFeatures.RETWEET\_SEARCHER,

RecapFeatures.REPLY\_SEARCHER,

RecapFeatures.MENTION\_SEARCHER,

RecapFeatures.REPLY\_OTHER,

RecapFeatures.RETWEET\_OTHER,

RecapFeatures.MATCH\_UI\_LANG,

RecapFeatures.MATCH\_SEARCHER\_MAIN\_LANG,

RecapFeatures.MATCH\_SEARCHER\_LANGS,

RecapFeatures.IS\_RETWEET,

RecapFeatures.IS\_REPLY,

RecapFeatures.HAS\_LINK,

RecapFeatures.HAS\_TREND,

RecapFeatures.IS\_SENSITIVE,

EngagementDataRecordFeatures.InNetworkFavoritesCount,

EngagementDataRecordFeatures.InNetworkRetweetsCount,

TimelinesSharedFeatures.NUM\_CAPS,

TimelinesSharedFeatures.ASPECT\_RATIO\_DEN,

TimelinesSharedFeatures.NUM\_NEWLINES,

TimelinesSharedFeatures.IS\_360,

TimelinesSharedFeatures.IS\_MANAGED,

TimelinesSharedFeatures.IS\_MONETIZABLE,

TimelinesSharedFeatures.HAS\_SELECTED\_PREVIEW\_IMAGE,

TimelinesSharedFeatures.HAS\_TITLE,

TimelinesSharedFeatures.HAS\_DESCRIPTION,

TimelinesSharedFeatures.HAS\_VISIT\_SITE\_CALL\_TO\_ACTION,

TimelinesSharedFeatures.HAS\_WATCH\_NOW\_CALL\_TO\_ACTION

)

val UserFeaturesV5Continuous: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.QUOTE\_COUNT,

TimelinesSharedFeatures.VISIBLE\_TOKEN\_RATIO,

TimelinesSharedFeatures.WEIGHTED\_FAV\_COUNT,

TimelinesSharedFeatures.WEIGHTED\_RETWEET\_COUNT,

TimelinesSharedFeatures.WEIGHTED\_REPLY\_COUNT,

TimelinesSharedFeatures.WEIGHTED\_QUOTE\_COUNT,

TimelinesSharedFeatures.EMBEDS\_IMPRESSION\_COUNT\_V2,

TimelinesSharedFeatures.EMBEDS\_URL\_COUNT\_V2,

TimelinesSharedFeatures.DECAYED\_FAVORITE\_COUNT,

TimelinesSharedFeatures.DECAYED\_RETWEET\_COUNT,

TimelinesSharedFeatures.DECAYED\_REPLY\_COUNT,

TimelinesSharedFeatures.DECAYED\_QUOTE\_COUNT,

TimelinesSharedFeatures.FAKE\_FAVORITE\_COUNT,

TimelinesSharedFeatures.FAKE\_RETWEET\_COUNT,

TimelinesSharedFeatures.FAKE\_REPLY\_COUNT,

TimelinesSharedFeatures.FAKE\_QUOTE\_COUNT,

TimeDataRecordFeatures.LAST\_FAVORITE\_SINCE\_CREATION\_HRS,

TimeDataRecordFeatures.LAST\_RETWEET\_SINCE\_CREATION\_HRS,

TimeDataRecordFeatures.LAST\_REPLY\_SINCE\_CREATION\_HRS,

TimeDataRecordFeatures.LAST\_QUOTE\_SINCE\_CREATION\_HRS,

TimeDataRecordFeatures.TIME\_SINCE\_LAST\_FAVORITE\_HRS,

TimeDataRecordFeatures.TIME\_SINCE\_LAST\_RETWEET\_HRS,

TimeDataRecordFeatures.TIME\_SINCE\_LAST\_REPLY\_HRS,

TimeDataRecordFeatures.TIME\_SINCE\_LAST\_QUOTE\_HRS

)

val UserFeaturesV5Boolean: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.LABEL\_ABUSIVE\_FLAG,

TimelinesSharedFeatures.LABEL\_ABUSIVE\_HI\_RCL\_FLAG,

TimelinesSharedFeatures.LABEL\_DUP\_CONTENT\_FLAG,

TimelinesSharedFeatures.LABEL\_NSFW\_HI\_PRC\_FLAG,

TimelinesSharedFeatures.LABEL\_NSFW\_HI\_RCL\_FLAG,

TimelinesSharedFeatures.LABEL\_SPAM\_FLAG,

TimelinesSharedFeatures.LABEL\_SPAM\_HI\_RCL\_FLAG,

TimelinesSharedFeatures.PERISCOPE\_EXISTS,

TimelinesSharedFeatures.PERISCOPE\_IS\_LIVE,

TimelinesSharedFeatures.PERISCOPE\_HAS\_BEEN\_FEATURED,

TimelinesSharedFeatures.PERISCOPE\_IS\_CURRENTLY\_FEATURED,

TimelinesSharedFeatures.PERISCOPE\_IS\_FROM\_QUALITY\_SOURCE,

TimelinesSharedFeatures.HAS\_QUOTE

)

val UserAuthorFeaturesV5: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.HAS\_QUOTE,

TimelinesSharedFeatures.LABEL\_ABUSIVE\_FLAG,

TimelinesSharedFeatures.LABEL\_ABUSIVE\_HI\_RCL\_FLAG,

TimelinesSharedFeatures.LABEL\_DUP\_CONTENT\_FLAG,

TimelinesSharedFeatures.LABEL\_NSFW\_HI\_PRC\_FLAG,

TimelinesSharedFeatures.LABEL\_NSFW\_HI\_RCL\_FLAG,

TimelinesSharedFeatures.LABEL\_SPAM\_FLAG,

TimelinesSharedFeatures.LABEL\_SPAM\_HI\_RCL\_FLAG

)

val UserTweetSourceFeaturesV1Continuous: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.NUM\_CAPS,

TimelinesSharedFeatures.NUM\_WHITESPACES,

TimelinesSharedFeatures.TWEET\_LENGTH,

TimelinesSharedFeatures.ASPECT\_RATIO\_DEN,

TimelinesSharedFeatures.ASPECT\_RATIO\_NUM,

TimelinesSharedFeatures.BIT\_RATE,

TimelinesSharedFeatures.HEIGHT\_1,

TimelinesSharedFeatures.HEIGHT\_2,

TimelinesSharedFeatures.HEIGHT\_3,

TimelinesSharedFeatures.HEIGHT\_4,

TimelinesSharedFeatures.VIDEO\_DURATION,

TimelinesSharedFeatures.WIDTH\_1,

TimelinesSharedFeatures.WIDTH\_2,

TimelinesSharedFeatures.WIDTH\_3,

TimelinesSharedFeatures.WIDTH\_4,

TimelinesSharedFeatures.NUM\_MEDIA\_TAGS

)

val UserTweetSourceFeaturesV1Boolean: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.HAS\_QUESTION,

TimelinesSharedFeatures.RESIZE\_METHOD\_1,

TimelinesSharedFeatures.RESIZE\_METHOD\_2,

TimelinesSharedFeatures.RESIZE\_METHOD\_3,

TimelinesSharedFeatures.RESIZE\_METHOD\_4

)

val UserTweetSourceFeaturesV2Continuous: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.NUM\_EMOJIS,

TimelinesSharedFeatures.NUM\_EMOTICONS,

TimelinesSharedFeatures.NUM\_NEWLINES,

TimelinesSharedFeatures.NUM\_STICKERS,

TimelinesSharedFeatures.NUM\_FACES,

TimelinesSharedFeatures.NUM\_COLOR\_PALLETTE\_ITEMS,

TimelinesSharedFeatures.VIEW\_COUNT,

TimelinesSharedFeatures.TWEET\_LENGTH\_TYPE

)

val UserTweetSourceFeaturesV2Boolean: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.IS\_360,

TimelinesSharedFeatures.IS\_MANAGED,

TimelinesSharedFeatures.IS\_MONETIZABLE,

TimelinesSharedFeatures.IS\_EMBEDDABLE,

TimelinesSharedFeatures.HAS\_SELECTED\_PREVIEW\_IMAGE,

TimelinesSharedFeatures.HAS\_TITLE,

TimelinesSharedFeatures.HAS\_DESCRIPTION,

TimelinesSharedFeatures.HAS\_VISIT\_SITE\_CALL\_TO\_ACTION,

TimelinesSharedFeatures.HAS\_WATCH\_NOW\_CALL\_TO\_ACTION

)

val UserAuthorTweetSourceFeaturesV1: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.HAS\_QUESTION,

TimelinesSharedFeatures.TWEET\_LENGTH,

TimelinesSharedFeatures.VIDEO\_DURATION,

TimelinesSharedFeatures.NUM\_MEDIA\_TAGS

)

val UserAuthorTweetSourceFeaturesV2: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.NUM\_CAPS,

TimelinesSharedFeatures.NUM\_WHITESPACES,

TimelinesSharedFeatures.ASPECT\_RATIO\_DEN,

TimelinesSharedFeatures.ASPECT\_RATIO\_NUM,

TimelinesSharedFeatures.BIT\_RATE,

TimelinesSharedFeatures.TWEET\_LENGTH\_TYPE,

TimelinesSharedFeatures.NUM\_EMOJIS,

TimelinesSharedFeatures.NUM\_EMOTICONS,

TimelinesSharedFeatures.NUM\_NEWLINES,

TimelinesSharedFeatures.NUM\_STICKERS,

TimelinesSharedFeatures.NUM\_FACES,

TimelinesSharedFeatures.IS\_360,

TimelinesSharedFeatures.IS\_MANAGED,

TimelinesSharedFeatures.IS\_MONETIZABLE,

TimelinesSharedFeatures.HAS\_SELECTED\_PREVIEW\_IMAGE,

TimelinesSharedFeatures.HAS\_TITLE,

TimelinesSharedFeatures.HAS\_DESCRIPTION,

TimelinesSharedFeatures.HAS\_VISIT\_SITE\_CALL\_TO\_ACTION,

TimelinesSharedFeatures.HAS\_WATCH\_NOW\_CALL\_TO\_ACTION

)

val UserAuthorTweetSourceFeaturesV2Count: Set[Feature[\_]] = Set(

TimelinesSharedFeatures.NUM\_CAPS,

TimelinesSharedFeatures.ASPECT\_RATIO\_DEN,

TimelinesSharedFeatures.NUM\_NEWLINES,

TimelinesSharedFeatures.IS\_360,

TimelinesSharedFeatures.IS\_MANAGED,

TimelinesSharedFeatures.IS\_MONETIZABLE,

TimelinesSharedFeatures.HAS\_SELECTED\_PREVIEW\_IMAGE,

TimelinesSharedFeatures.HAS\_TITLE,

TimelinesSharedFeatures.HAS\_DESCRIPTION,

TimelinesSharedFeatures.HAS\_VISIT\_SITE\_CALL\_TO\_ACTION,

TimelinesSharedFeatures.HAS\_WATCH\_NOW\_CALL\_TO\_ACTION

)

val LabelsV2: Set[Feature.Binary] = RecapLabelsForAggregation ++ Set(

RecapFeatures.IS\_REPLIED,

RecapFeatures.IS\_PHOTO\_EXPANDED,

RecapFeatures.IS\_VIDEO\_PLAYBACK\_50

)

val TwitterWideFeatures: Set[Feature[\_]] = Set(

RecapFeatures.IS\_REPLY,

TimelinesSharedFeatures.HAS\_QUOTE,

RecapFeatures.HAS\_MENTION,

RecapFeatures.HAS\_HASHTAG,

RecapFeatures.HAS\_LINK,

RecapFeatures.HAS\_CARD,

RecapFeatures.CONTAINS\_MEDIA

)

val TwitterWideLabels: Set[Feature.Binary] = Set(

RecapFeatures.IS\_FAVORITED,

RecapFeatures.IS\_RETWEETED,

RecapFeatures.IS\_REPLIED

)

val ReciprocalLabels: Set[Feature.Binary] = Set(

RecapFeatures.IS\_REPLIED\_REPLY\_IMPRESSED\_BY\_AUTHOR,

RecapFeatures.IS\_REPLIED\_REPLY\_REPLIED\_BY\_AUTHOR,

RecapFeatures.IS\_REPLIED\_REPLY\_FAVORITED\_BY\_AUTHOR

)

val NegativeEngagementLabels: Set[Feature.Binary] = Set(

RecapFeatures.IS\_REPORT\_TWEET\_CLICKED,

RecapFeatures.IS\_BLOCK\_CLICKED,

RecapFeatures.IS\_MUTE\_CLICKED,

RecapFeatures.IS\_DONT\_LIKE

)

val GoodClickLabels: Set[Feature.Binary] = Set(

RecapFeatures.IS\_GOOD\_CLICKED\_CONVO\_DESC\_V1,

RecapFeatures.IS\_GOOD\_CLICKED\_CONVO\_DESC\_V2,

)

}