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(81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI,

(54) Title: METHOD AND APPARATUS FOR TRAINING BEHAVIOR PREDICTION MODEL

(54) 发明名称: 一种训练行为预测模型的方法及装置

方法 200

202, 电子设备对用户的行为序列进行拆分, 得到多个单行为序列, 各个单行为序列对应于一种行为, 用于记录行为和时间的对应关系

204, 电子设备对多个单行为序列进行时间编码, 得到多个单行为序列的多个单行为时间序列

206, 电子设备将多个单行为时间序列输入行为预测模型, 由行为预测模型对多个单行为时间序列中各个单行为时间序列进行时间点的建模, 得到多个单行为时间序列对应的行为在时间上的分布情况

208, 电子设备基于多个单行为时间序列对应的行为在时间上的分布情况与多个单行为时间序列之间的第一损失值, 对行为预测模型进行训练, 行为预测模型用于基于用户的行为序列预测用户未来至少一种行为的时间点和类型

200 METHOD

202 AN ELECTRONIC DEVICE SPLITS A BEHAVIOR SEQUENCE OF A USER, SO AS TO OBTAIN A PLURALITY OF SINGLE-BEHAVIOR SEQUENCES, WHEREIN EACH SINGLE-BEHAVIOR SEQUENCE CORRESPONDS TO ONE TYPE OF BEHAVIOR, AND IS USED FOR RECORDING CORRESPONDENCES BETWEEN THE BEHAVIOR AND TIME POINTS

204 THE ELECTRONIC DEVICE PERFORMS TIME ENCODING ON THE PLURALITY OF SINGLE-BEHAVIOR SEQUENCES, SO AS TO OBTAIN A PLURALITY OF SINGLE-BEHAVIOR TIME SEQUENCES FOR THE PLURALITY OF SINGLE-BEHAVIOR SEQUENCES

206 THE ELECTRONIC DEVICE INPUTS THE PLURALITY OF SINGLE-BEHAVIOR TIME SEQUENCES INTO A BEHAVIOR PREDICTION MODEL, AND THE BEHAVIOR PREDICTION MODEL MODELS TIME POINTS IN EACH OF THE PLURALITY OF SINGLE-BEHAVIOR TIME SEQUENCES, SO AS TO OBTAIN THE DISTRIBUTION CONDITIONS OF BEHAVIORS CORRESPONDING TO THE PLURALITY OF SINGLE-BEHAVIOR TIME SEQUENCES IN TERMS OF TIME

208 THE ELECTRONIC DEVICE TRAINS THE BEHAVIOR PREDICTION MODEL ON THE BASIS OF THE DISTRIBUTION CONDITIONS OF THE BEHAVIORS CORRESPONDING TO THE PLURALITY OF SINGLE-BEHAVIOR TIME SEQUENCES IN TERMS OF TIME, AND A FIRST LOSS VALUE BETWEEN THE PLURALITY OF SINGLE-BEHAVIOR TIME SEQUENCES, WHEREIN THE BEHAVIOR PREDICTION MODEL IS USED FOR PREDICTING A TIME POINT AND THE TYPE OF AT LEAST ONE FUTURE BEHAVIOR OF THE USER ON THE BASIS OF THE BEHAVIOR SEQUENCE OF THE USER

图 2

(57) Abstract: Provided in the embodiments of the present description are a method and apparatus for training a behavior prediction model. In the embodiments of the present description, a sequence (a behavior sequence of a user) comprising a plurality of types of behaviors is split according to the types of behaviors, such that a plurality of single-behavior sequences are acquired; time encoding is performed on all time points in each of the plurality of single-behavior sequences, such that a plurality of single-behavior time sequences corresponding to the plurality of single-behavior sequences are acquired; each of the plurality of single-behavior time sequences is modeled by using a behavior prediction model, and all time points in each of the plurality of single-behavior time sequences are focused on, such that the distribution conditions, which are predicted by the behavior prediction model, of behaviors corresponding to the plurality of single-behavior time sequences in terms of time are acquired; and the behavior prediction model is trained on the basis of

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the distribution conditions of the behaviors corresponding to the plurality of single-behavior time sequences in terms of time, and a loss value between the plurality of single-behavior time sequences.

(57) 摘要: 本说明书实施例提供了一种训练行为预测模型的方法及装置。本说明书的实施例将包括多种行为的类型的序列(用户的行为序列)按照行为的类型进行拆分, 获取多个单行为序列; 对多个单行为序列中的每个单行为序列的所有时间点进行时间编码, 获取多个单行为序列对应的多个单行为时间序列; 利用行为预测模型对多个单行为时间序列中的每个单行为时间序列进行建模, 关注多个单行为时间序列中的每个单行为时间序列的所有时间点, 以获取行为预测模型预测的多个单行为时间序列对应的行为在时间上的分布情况; 基于多个单行为时间序列对应的行为在时间上的分布情况与多个单行为时间序列之间的损失值, 来训练行为预测模型。