## Claims

1. An apparatus for providing user specific data to a user, the apparatus comprising:

a computer processor; and

a data storage device~~, the data storage device having a user frequented merchant determination module; a user preference item determination module; a merchant inventory data look up module; a user specific merchant information determination module; a user specific merchant information analysis module; and a user device communication module comprising~~ storing instructions ~~operative~~ that when executed by the computer processor, direct the apparatus to:

receive user data from a payment card repository;

analyze user data associated with a user to determine a set of user frequented merchants for the user by extracting merchant identifiers from transaction data for a payment card associated with the user, each user frequented merchant having an associated merchant identifier, wherein the user data comprises the transaction data for the payment card associated with the user and images captured by a camera of a device associated with the user, the images containing items associated with the transaction data;

analyze the user data associated with the user, including the transaction data and the images containing the items associated with the transaction data, to determine a set of user preference items for the user;

look up inventory data located in a merchant inventory data repository for each merchant in the set of user frequented merchants, using the associated merchant identifier, and determine user specific merchant information from the inventory data, the inventory data including recent images of inventory at each merchant in the set of user frequented merchants, the user specific merchant information comprising information for each of the user preference items at that merchant;

analyze the user specific merchant information for each of the merchants, including the recent images of inventory at each merchant in the set of user frequented merchants, to determine a user recommendation indication; and

transmit the user recommendation indication to a device associated with the user.

2. An apparatus according to claim 1, wherein the user specific merchant information comprises price information for each of the user preference items at ~~a~~ that merchant, and wherein the ~~user specific merchant information analysis module further comprises~~ instructions ~~operative by~~ further direct the ~~processor~~ apparatus to:

analyze the user specific merchant information to determine ~~a~~ the user recommendation indication by determining a merchant from the set of user frequented merchants with an optimized price for the set of user preference items.

3. An apparatus according to claim 1 ~~or 2~~, wherein the user specific merchant information comprises availability information for each of the user preference items at ~~a~~ that merchant.

~~4. An apparatus according to any preceding claim, wherein the user data comprises transaction data for a payment card associated with the user, and wherein the user specific merchant information analysis module further comprises instructions operative by the processor to analyze the user data to determine a set of user frequented merchants for the user by extracting merchant identifiers from the transaction data.~~

~~5.~~4. An apparatus according to ~~any preceding~~ claim 1, wherein the instructions further direct the ~~user device communication module further comprising instructions operative by the processor~~ apparatus to:

receive user preference item indications from the device associated with the user, and wherein the user data comprises the user preference item indications.

~~6.~~5. An apparatus according to claim ~~5~~4, wherein the user preference item indications comprise images of items, and wherein the ~~user preference item determination module further comprises~~ instructions further direct ~~operative by~~ the apparatus ~~processor to analyze the user data~~ to:

determine ~~a~~ the set of user preference items for the user by applying an image recognition algorithm to the images to determine item identifiers from the images.

~~7. An apparatus for providing user specific data relating to a user frequented merchant to a user, the apparatus comprising:~~

~~a computer processor and a data storage device, the data storage device having a user preference item determination module; a merchant inventory data look up module; a user specific merchant information determination module; a user specific merchant information analysis module; and a user device communication module comprising instructions operative by the processor to:~~

~~analyze the user data associated with the user to determine a set of user preference items for the user;~~

look up inventory data for the user frequented merchant using a merchant identifier associated with the user frequented merchant and determine user specific merchant information from the inventory data, the user specific merchant information comprising information for each of the user preference items at that merchant;

analyze the user specific merchant information for the user frequented merchant to generate a user alert; and

transmit the user alert to a device associated with the user.

8. An apparatus according to claim 7, wherein the user specific merchant information analysis module further comprises instructions operative by the processor to analyze the user specific merchant information for the user frequent merchant by identifying an item from the set of user preference items which is out of stock at the merchant and the user alert comprises an identifier of that item.

9. An apparatus according to claim 7, wherein the user specific merchant information analysis module further comprises instructions operative by the processor to analyze the user specific merchant information for the user frequent merchant by identifying a change in status of an item from the set of user preference items the merchant and the user alert comprises an identifier of that item.

10. An apparatus according to claim 9, wherein the change in status is a change in price of the item at the merchant.

11. An apparatus according to any one of claims 7 to 10, the user device communication module further comprising instructions operative by the processor to receive user preference item indications from the device associated with the user and wherein the user data comprises the user preference item indications.

12. An apparatus according to claim 11 wherein the user preference item indications comprise images of items and wherein the user preference item determination module further comprises instructions operative by the processor to analyze the user data to determine a set of user preference items for the user comprises applying an image recognition algorithm to the images to determine item identifiers from the images.

13.6. A computer-implemented data processing method of providing user specific data to a user, the method comprising:

receiving user data from a payment card repository;

analyzing~~, in a user frequented merchant determination module,~~ user data associated with a user to determine a set of user frequented merchants for the user by extracting merchant identifiers from transaction data for a payment card associated with the user, each user frequented merchant having an associated merchant identifier, wherein the user data comprises the transaction data for the payment card associated with the user and images captured by a camera of a device associated with the user, the images containing items associated with the transaction data;

analyzing~~, in a user preference item determination module,~~ the user data associated with the user, including the transaction data and the images containing the items associated with the transaction data, to determine a set of user preference items for the user;

for each merchant in the set of user frequented merchants, using the associated merchant identifier to look up inventory data located in a merchant inventory data repository for that merchant and determining user specific merchant information from the inventory data, the inventory data including recent images of inventory at each merchant in the set of user frequented merchants, the user specific merchant information comprising information for each of the user preference items at that merchant;

analyzing~~, in a user specific merchant information determination module,~~ the user specific merchant information for each of the merchants, including the recent images of inventory at each merchant in the set of user frequented merchants, to determine a user recommendation indication; and

transmitting the user recommendation indication to a device associated with the user, wherein at least the steps of analyzing user data and analyzing the user specific merchant information are performed by one or more computer processors.

~~14.~~7. A method according to claim ~~13~~ 6, wherein the user specific merchant information comprises price information for each of the user preference items at ~~a~~ that merchant, and wherein analyzing the user specific merchant information to determine ~~a~~ the user recommendation indication comprises determining a merchant from the set of user frequented merchants with an optimized price for the set of user preference items.

~~15.~~8. A method according to claim 6~~13 or 14~~, wherein the user specific merchant information comprises availability information for each of the user preference items at ~~a~~ that merchant.

~~16. A method according to any one of claims 13 to 15, wherein the user data comprises transaction data for a payment card associated with the user and wherein analyzing the user data to determine a set of user frequented merchants for the user comprises extracting merchant identifiers from the transaction data.~~

~~17.~~9. A method according to ~~any one of~~ claim~~s~~ 6~~13 to 16~~, further comprising receiving user preference item indications from the device associated with the user and wherein the user data comprises the user preference item indications.

~~18.~~10. A method according to claim ~~17~~ 9, wherein the user preference item indications comprise images of items, and wherein analyzing the user data to determine ~~a~~ the set of user preference items for the user comprises applying an image recognition algorithm to the images to determine item identifiers from the images.

~~19.~~11. A non-transitory computer-readable medium having stored thereon program instructions for causing at least one processor to: ~~perform the method according to any one of claims 13 to 18.~~

receive user data from a payment card repository;

analyze user data associated with a user to determine a set of user frequented merchants for the user by extracting merchant identifiers from transaction data for a payment card associated with the user, each user frequented merchant having an associated merchant identifier, wherein the user data comprises the transaction data for the payment card associated with the user and images captured by a camera of a device associated with the user, the images containing items associated with the transaction data;

analyze the user data associated with the user, including the transaction data and the images containing the items associated with the transaction data, to determine a set of user preference items for the user;

look up inventory data located in a merchant inventory data repository for each merchant in the set of user frequented merchants, using the associated merchant identifier, and determine user specific merchant information from the inventory data, the inventory data including recent images of inventory at each merchant in the set of user frequented merchants, the user specific merchant information comprising information for each of the user preference items at that merchant;

analyze the user specific merchant information for each of the merchants, including the recent images of inventory at each merchant in the set of user frequented merchants, to determine a user recommendation indication; and

transmit the user recommendation indication to a device associated with the user.

12. The computer-readable medium of claim 11, wherein the user specific merchant information comprises price information for each of the user preference items at that merchant, wherein the program instructions to analyze the user specific merchant information to determine the user recommendation indication cause the at least one processor to determine a merchant from the set of user frequented merchants with an optimized price for the set of user preference items.

13. The computer-readable medium of claim 11, wherein the user specific merchant information comprises availability information for each of the user preference items at that merchant.

14. The computer-readable medium of claim 11, further comprising instructions for causing the at least one processor to receive user preference item indications from the device associated with the user, and wherein the user data comprises the user preference item indications.

15. The computer-readable medium of claim 14, wherein the user preference item indications comprise images of items, and wherein the program instructions that cause the at least one processor to analyze the user data to determine the set of user preference items for the user comprise applying an image recognition algorithm to the images to determine item identifiers from the images.