TagNBank: Tag-based interaction in mobile banking
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ABSTRACT
Tags assigned by users in online and mobile banking are suitable to facilitate customization. This is especially useful and desirable in the mobile context as mobile devices are considered more personal than computers. Also, smaller screen sizes and increased risk of mistyping in the mobile context present a need for a simpler and easy-to-use interaction style.

Categories and Subject Descriptors
H5.2. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms
Design, Human Factors.

Keywords
Usability, mobile, tags, interaction, customization, banking

1. INTRODUCTION
Tags are widely used to aid personal financial management. Tools such as Mint (http://www.mint.com) enable users to tag financial data mainly for budgeting, cash flow analysis and tax return purposes. Banks, for example, Australia-New Zealand (ANZ) offer this feature to customers as a value added service for no extra cost via ANZ MoneyManager (http://www.anz.com/ANZ-moneymanager/). However, these tools require users to tag financial data separately and tags are only assigned at a high level to transactions as category or description. The integration of tags as part of online banking not only eases the process of tagging but also facilitates customization. The use of tags at a fine-grained level for resources such as bank accounts and billers opens the door to a set of customized interactions (see figure above). We refer to this notion as tag-based interaction. In our evaluation we find that tag-based interaction improves usability of mobile banking especially user satisfaction.

2. PROTOTYPE
The TagNBank prototype is specifically built for smart phones and is an extension of an online version. Tags assigned in the online context are available in the mobile context and vice-versa. Firstly, through selection of two or more tags (e.g., ‘Everyday’ + ‘John’ → funds transfer from Everyday account to John’s account) banking activities can be easily carried out especially new transactions. The underlying tag-resource relationship is used to populate and recommend a set of banking tasks based on user’s banking history. Secondly, relevant tags are automatically suggested to users according to the resources selected (e.g., biller). This simplifies the process of tagging and facilitates re-use of tags on mobile devices. Lastly, tags assigned to past transactions make it easy to repeat transactions. Clicking on a tag displayed on the tag cloud helps to auto-fill banking forms.

3. EVALUATION
A usability study comparing the existing ‘conventional’ interface was conducted with a group of banking users. The study examined three aspects of usability: satisfaction, effectiveness and efficiency. The results showed a significant improvement in terms of user satisfaction (perceived usability). This outcome is particularly apparent among inexperienced mobile banking users. The study shows tag-based interaction has the potential to positively affect the adoption and acceptance of mobile banking.

This work is also published here: