



CONCEPT DOCUMENT

Frank

TEAM MEMBERS

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PROBLEM DEFINITION

“Insanity is doing the same thing over and over again and expecting it to come out differently.”

While many debate the origin of that quote, few challenge its validity. Do we as Credit Unions continue to do the “same thing over and over again”, or are we truly innovating for our members? Take, for example, the monthly statement. Have we considered the real value that this recurring communication provides for our members? We live in a world where members can easily access account information on demand using mobile devices, where monthly balancing of checkbooks is a fading art, and where thirty day old information (i.e. the “monthly statement”) is no longer considered relevant. For many years Credit Unions have pushed e-statements as the solution, but an e-statement is nothing more than an online version of the paper statement – a prime example of “Doing the same thing over and over again”.

Team Wikiality believes however that there is **tremendous value** yet to be unleashed in the process by which Credit Unions communicate critical account information to members. How then do we unleash that value and make the process more relevant, timely and insightful?

INNOVATIVE SOLUTION

Introducing **Frank**, a real time fin-tech app with predictive and cognitive algorithms designed to learn and suggest how members can maximize their financial potential. When you’re traveling, there are apps to tell you where your plane is in the air, how close you are to your destination, and when you will be arriving. When you need to know how to pack for that trip, there are apps to tell you what the weather should be like anywhere in the world – down to the hour! These tools use available data combined with cognitive algorithms to make meaningful – and accurate – predictions. **Credit Unions can do that too!** **Frank** tells a member **more** than what they already know. Using data analytics, **Frank** can among other things:

- ✓ Forewarn members about expenses that may be approaching based on their transactional history
- ✓ Inform members whether they have enough in their account to cover the expenses that they had during the same period in prior years or months
- ✓ Identify spending patterns that are outside of a members normal behaviors
- ✓ Identify opportunities for members to pay down on debt or save more of their excess cash

Frank continues to provide the data required from a regulatory standpoint, in order to serve as a replacement to the traditional statement. This decreases costs for Credit Unions using **Frank**, since members opt in to **Frank** as an alternative to either the paper or the e-statement requirement. **Frank** also positions Credit Unions as their members’ financial institution of choice. Consumers are more conscience than ever of who has their information, and more cautious than ever about who they trust with that information. Unlike Personal Financial Management solutions like Mint or Quicken, which sell information to third party marketers, **Frank** is offered by Credit Unions solely for the benefit of members. The insights are provided without bias – and without a hidden agenda. **Frank** asks “what is best for the member”.

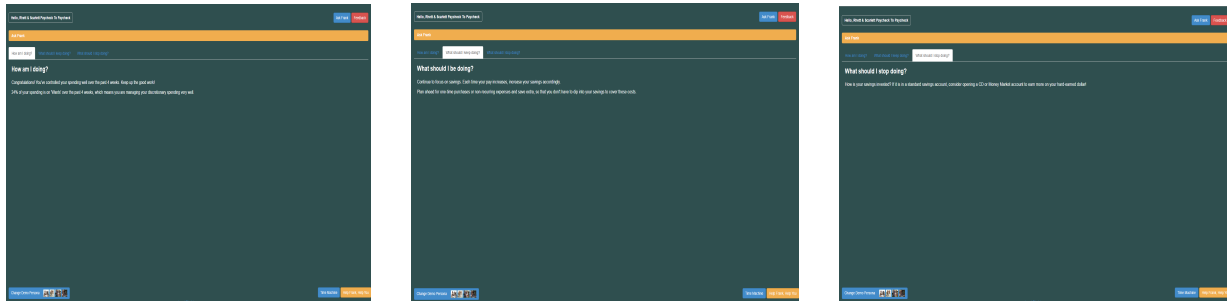
Frank is available to all members, with no set up required and using only information that credit unions already possess. With complete access to a member's transaction history, **Frank** improves upon the outdated monthly statements financial institutions have long been required to send their members. **Frank** never stops learning how best to guide a member through financial decisions in their everyday lives thus filling the gap that now exists between mobile banking's static balance/transaction data, and complex budgeting and planning applications. **Frank's** ease-of-use, predictive modeling, and flexibility position it as the future of member communications for Credit Unions. **Frank** is insight that members can trust!

PROTOTYPE

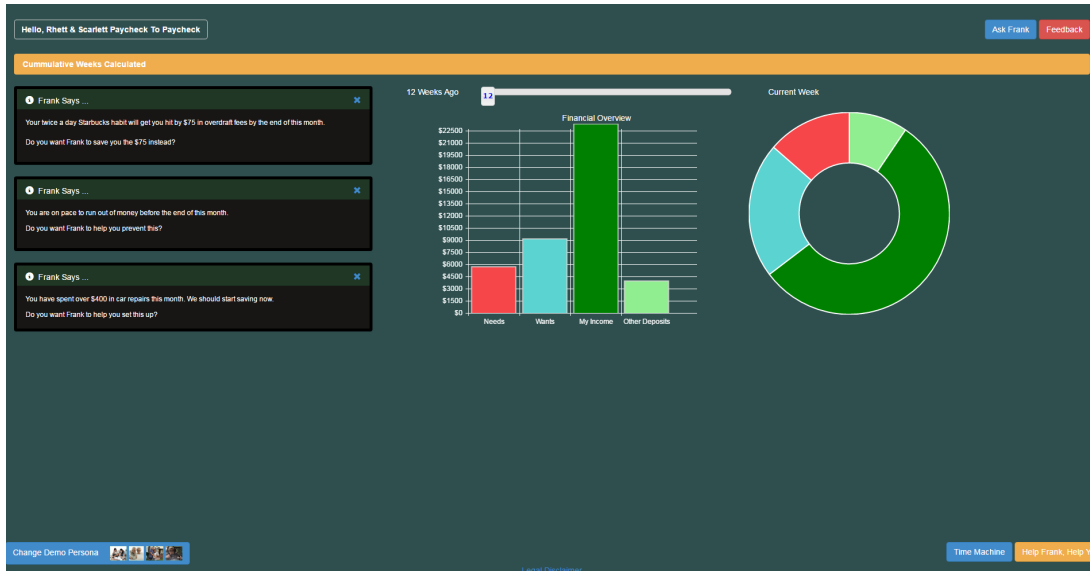
The **Frank** prototype was developed in collaboration with Horsetail Technologies. It uses a simple, intuitive interface to guide members through a series of questions:

- How Am I Doing?
- What Should I Keep Doing?
- What Should I Stop Doing?

Each of these questions is represented on a separate screen with snapshots and customized advice from **Frank** to guide members in making better, more informed decisions about daily spending and savings. The snapshots and the advice are both customized using the member's own transaction data over a pre-set time frame.



Frank also includes a “Time Machine” page which provides a summary of spending over various time periods which can be changed by the member using the slider bar. This enables a member to quickly look at historical spending summaries, as well as future spending projections, all on one simple to use page!



The “Help **Frank** Help You” page enables users to easily change their default time period preference. Members who are paid every two weeks might prefer to see two weeks of data, other members might prefer the traditional monthly view. Still others might prefer to see summaries a week at a time. It’s completely up to the member!

This page also provides the historical transaction data typically shown on the monthly statement, but with radio buttons for members to help “teach” **Frank** how they earn and spend using four basic categories –My Income, Other Deposits, Needs and Wants. The categories are simple so that the user experience is also simple. Since **Frank** is providing advice on daily financial habits, there’s no need for a member to define complex categories and sort transactions into multiple “buckets”. **Frank** only needs to know what income and expenses are recurring, and which are discretionary or one-time.

Frank makes an initial best-guess the first time a new transaction description is encountered; however, if a member subsequently changes the category then **Frank** will retain the member’s preference for all instances going forward. **Frank** is truly learning about each individual member over time!

The screenshot displays the 'Account Summary' interface. It shows a table of transactions with columns for Item, Transaction, Date, Credit, Debit, My Income, Other Deposits, Needs, and Wants. The table lists various transactions for November, including ATM, BBPayment, CreditCardPayment, CreditVoucher, DirectDeposit, Entertainment, FEE, Food/Restaurants/Convenience/Gas, HELLOC, and Insurance. The interface includes a 'Show 10 entries' dropdown, a 'Search' field, and a 'Time Machine' button at the bottom right.

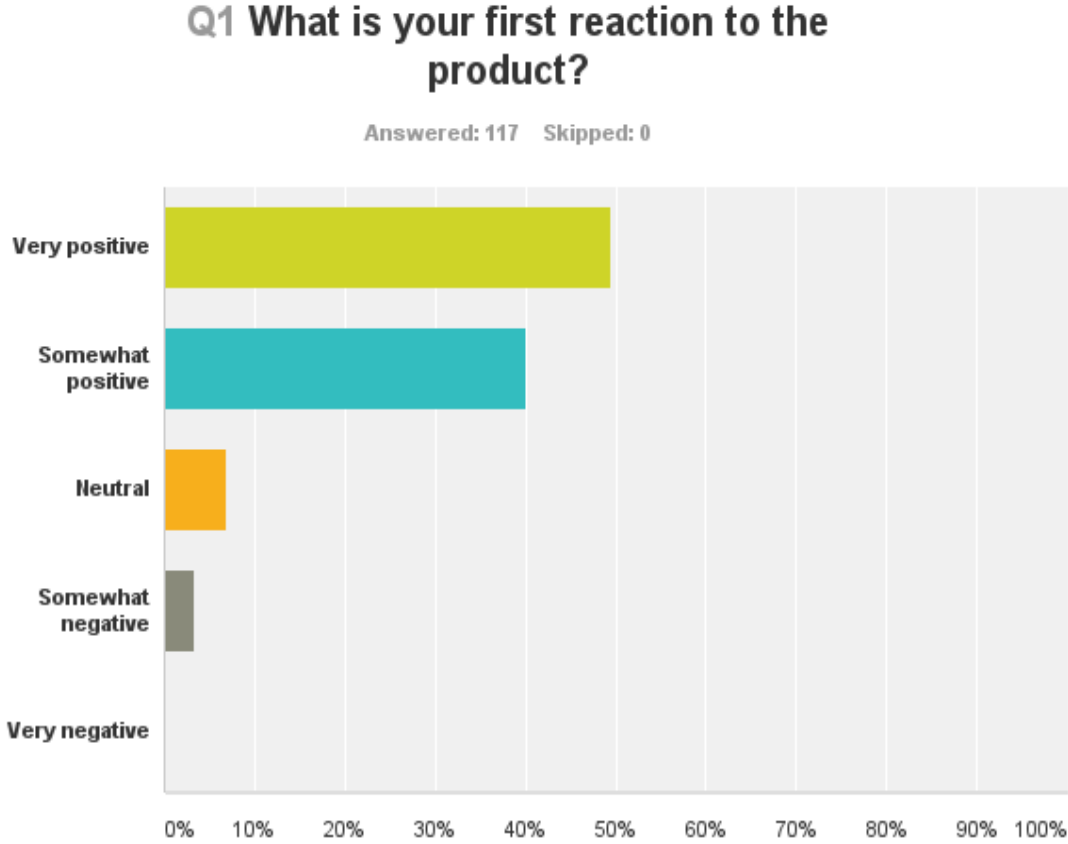
Item	Transaction	Date	Credit	Debit	My Income	Other Deposits	Needs	Wants
ATM		November	365.00					
BBPayment		November	896.00					*
CreditCardPayment		November	476.00					*
CreditVoucher		November	0.00					*
DirectDeposit		November		7362.70	*			
Entertainment		November	29.00		*			
FEE		November	245.00					*
Food/Restaurants/Convenience/Gas		November	1640.81					*
HELLOC		November		631.30		*		
Insurance		November	50.00				*	

TESTING AND RESULTS

- Frank** was tested in two ways:
- Market Demand Survey
 - Test Data on the Cognitive Algorithm

Market Demand Survey

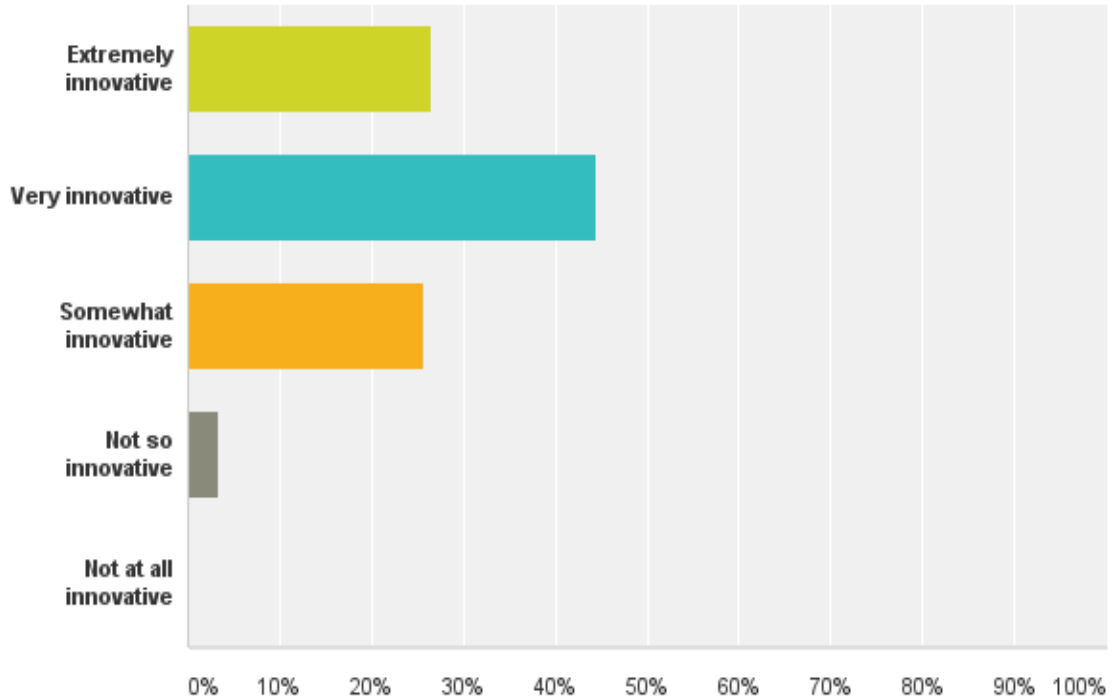
A nine question, online survey was launched to test market reaction and demand for **Frank**. Over 117 respondents took time to give their thoughts and comments on the prototype. We offered a few basic screenshots of what **Frank** might look like, along with some additional language to explain future functionality and our desired project goals. The survey was live for a week, starting on April 15th. The results came back favorably, with nearly 90% of respondents rating their reaction to the product as very positive (50%) or somewhat positive (40%). Less than 4% of respondents reacted somewhat negative, with zero respondents selecting very negative.



When considering the product’s creativity, 44% agreed it was very innovative, with an additional 26% responding extremely innovative. Again, less than 4% found **Frank** to be not so innovative.

Q3 How innovative is the product?

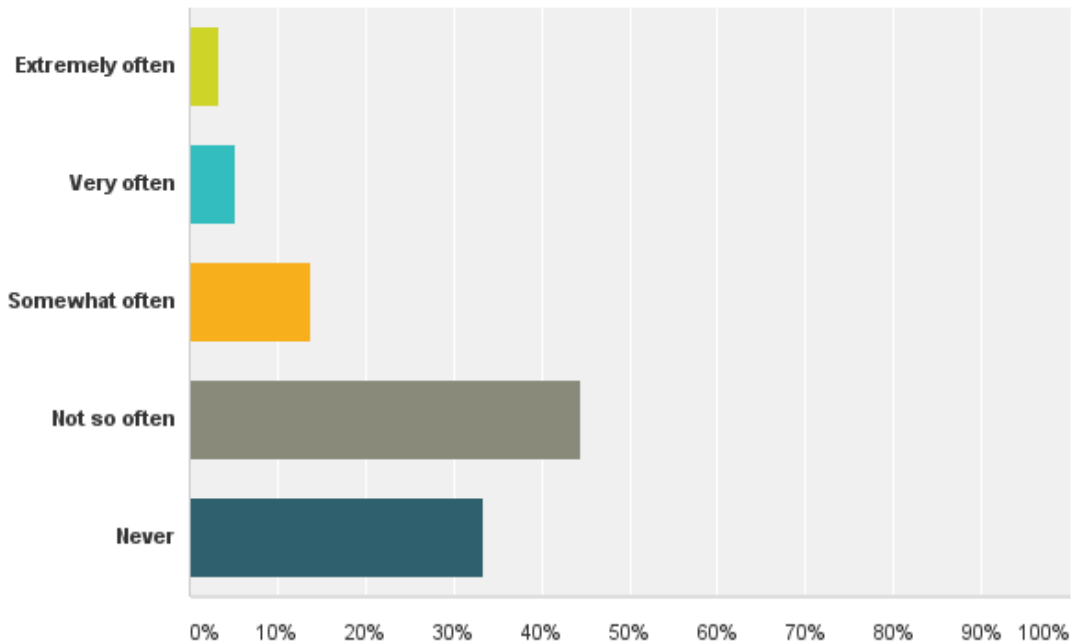
Answered: 117 Skipped: 0



When considering how unique the offering was, less than 9% of respondents answered they used a similar product extremely often (3%) or very often (5%). One-third of the survey participants responded that they have never used a product like **Frank**.

Q4 How often, if ever, do you currently use other, similar products?

Answered: 117 Skipped: 0



When asked what they liked most about **Frank**, 29% of respondents mentioned **Frank's** ability to track or monitor spending. Additionally, financial education and simplicity were also themes mentioned numerous times. When asked how **Frank** might be improved, 15% of respondents mentioned the product's appearance, which is to be expected given the limited screenshots available at the date of survey launch.

Test Data on the Cognitive Algorithm

To test the algorithm, **Frank** considered transactional data from actual credit union members. Members were divided into four personas: Paycheck to Paycheck, White Knucklers, Retirees, and Savvy Savers. This test allowed **Frank's** creators the ability to fine tune the algorithm, to ensure it was providing meaningful predictive advice.

Using the sample data set, **Frank** was able to accurately provide insight and advice to members based on three months of transaction data. Continued data collection will only improve **Frank's** ability to forecast what's ahead for members, and help them plan the best route around those financial challenges. Users will also have the option to edit and reclassify transactions to their preferences, allowing **Frank** to fit custom needs of its vast target market.

COMMENTS, NEXT STEPS, AND CALL TO ACTION

The secret sauce of **Frank** is the cognitive learning used for predictive analytics. This will require an investment of resources to fully develop the complex algorithms required. Member survey and additional testing will also be required to refine the user interfaces. Finally, it will be necessary to build standard interfaces for **Frank** to interact with existing On-line banking and Mobile banking platforms to gather the data required to drive the algorithms.

While the challenges are many – the rewards are great. To paraphrase the infamous Rhett Butler in *Gone with the Wind* -- when it comes to member statements – “Frankly my dear, no one gives a Damn.” We invite you to partner with Team Wikiality to further develop the **Frank** solution – and usher in a new era of member communications for Credit Unions!

ABOUT FILENE

Filene Research Institute is an independent, consumer finance think and do tank. We are dedicated to scientific and thoughtful analysis about issues affecting the future of credit unions, retail banking, and cooperative finance.

Deeply embedded in the credit union tradition is an ongoing search for better ways to understand and serve credit union members. Open inquiry, the free flow of ideas, and debate are essential parts of the true democratic process. Since 1989, through Filene, leading scholars and thinkers have analyzed managerial problems, public policy questions, and consumer needs for the benefit of the credit union system. We support research, innovation, and impact that enhance the well-being of consumers and assist credit unions and other financial cooperatives in adapting to rapidly changing economic, legal, and social environments.

We're governed by an administrative board made up of credit union CEOs, the CEOs of CUNA & Affiliates and CUNA Mutual Group, and the chairman of the American Association of Credit Union Leagues (AACUL). Our research priorities are determined by a national Research Council comprised of credit union CEOs and the president/CEO of the Credit Union Executives Society.

We live by the famous words of our namesake, credit union and retail pioneer Edward A. Filene: "Progress is the constant replacing of the best there is with something still better." Together, Filene and our thousands of supporters seek progress for credit unions by challenging the status quo, thinking differently, looking outside, asking and answering tough questions, and collaborating with like-minded organizations.

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