Team Chartreuse Project Proposal

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The problem

We want to explore the problem of paying a bill at a restaurant in a convenient manner. Watching parties try to pay at restaurants is always interesting—some people split the bill exactly, some pay by dish, and in some case owe each other confusing amounts of money due to lack of cash. Some groups try to solve the problem by using credit/debit cards and asking the waitstaff to solve the problem, which often annoys the waitstaff.

We are interested in designing a better interface or a model for payment systems. The payment system would be used in restaurants by customers or waitstaff. The end goal is to make payment easier for customers, by providing an interface to easily split bills for big groups, calculating tips and so forth.

The user group

The restaurants we are targeting are chain restaurants providing full sit-down dinner services, such as Legal Seafood, Masala Art, and TGI Fridays. Our primary users would be customers such as business partners, families, groups of friends or college students. Because the following contexts do not often enlist the payment problem, we will not be targeting:

- cafes
- family restaurants
- fast food establishments

We would like to target customers of sit-down restaurants in general. In doing so, we would like to be inclusive of:

- people taking their significant others on dates; it often depends on the type of couple or date as to how the paying goes
- organizations using an outside source of money to pay
- friends going out for food (the bill may be split equally, or by meal, or just paid by one rich kid)
- business people; the bill may be split, or paid by the highest-ranking employee.
- Asians who fight over the bill unattractively

We also don't want to neglect waitstaff and restaurant owners, who would certainly be affected by this device, but we believe that going from a customer side perspective is more interesting overall.

Many of our listed restaurants of interest can be found in Needham, Wellesley, or other close areas. Through direct interviews and participatory observation, we will be able to learn about our users (customers of the restaurants). We will also observe and interview waitstaff and restaurant owners, as they are important stakeholders in our design. We may even eat at some of the restaurants during our study.

Some possible devices

One existing tool is BillMonk, a website that allows people to keep track of their debts to other people. This allows one person to pay for the entire meal using a credit/debit card, and, holding onto the receipt, charging people via website. The website keeps track of what different people owe each other, and present to each user only the total amount needed to be paid to any person. This is incredibly useful for close friends who often borrow money from each other, and who need to keep track of a lot of transactions, ranging from meal payments to rent payments.

Our solution may take on a similar idea, but might be placed in the restaurant itself. It may be a device that connects to a web app, or to the internal payment application used by the restaurant. The device may operate using a touch screen, or a small QWERTY keypad. We want whatever product we have to do more than just defer payment. In one such rendition, we might include features such as splitting the bill (so individuals can pay for their part at the restaurant), or calculating a desired tip.

Our team

In thinking through our management structure, we have chosen to use the suggested roles, as outlined below.

- group manager-Yifan
- evaluation manager- Will
- documentation manager- Chujiao
- design manager- Ben

The individual competencies useful to the group are shown below:

Will - physical modeling, design ideation, big picture analysis.
Ben - Talking with users, analyzing user values, idea generation, paper prototyping.
Chujiao - documenting our work, coordinating and organizing, website experience (HTML, CSS).
Yifan - programming (PHP, JavaScript, Python), sketching, typing.