
Open by Design: How IBM Partnered with the User Community in the Redesign of Lotus Notes

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Abstract

This paper describes the methods used to successfully redesign the IBM® Lotus Notes® user experience. The methods we found most valuable were designed to be open to a rich dialog with the wide community of Notes users. Based on our experience, we share practical benefits and challenges with using these methods.

Keywords

Design Methods, Involving Users, Usability, IBM Lotus Notes, User Experience Practice

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Introduction

In this paper, we describe contrasting experiences with thirteen different methods of involving members of the user community in the redesign of a mature, enterprise collaboration product. The methods we found most valuable were those designed to include a rich dialog with the wide community of users.

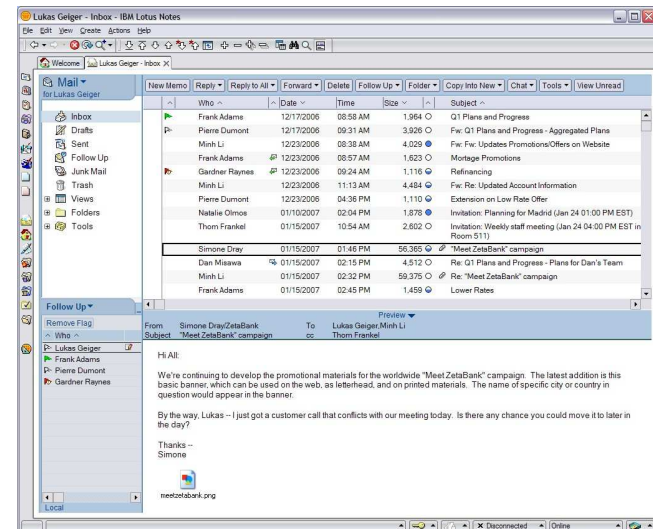
Our work relates to that of many other user experience practitioners who have expanded traditional user experience methods to include more direct customer input and to openly partner with customers in product design. For example, Karmin, et al [1] reported on their on-site collaboration and testing with users and a variety of stakeholders in their design of a hands-free mobile communication device for use in hospitals. Mackay [e.g., 2] employed a large number of imaginative multi-disciplinary participatory design techniques in settings such as families and conferences.

In addition, we explored methods that tap into what Li and Bernoff [3] describe as the “groundswell” of community involvement in social technologies. Our users were communicating with each other, blogging about their experiences with our products, and eager for other ways to drive design and development. We knew that “The groundswell trend is unstoppable” and is changing the way companies market, advertise, and, in general, interact with their customer base. [3] We, in the design group, recognized that this groundswell of social technologies should change not only marketing and advertising, but also the design process, including user research and usability processes. Therefore, we deliberately opened our design process to significant influence by the user community.

About Lotus Notes

The work described here was conducted to redesign IBM® Lotus Notes®. Lotus Notes is a groupware product that provides e-mail, calendar, contacts, as well as integrated instant messaging, and many other customizable applications, such as databases, discussion forums, and team rooms, all assembled in one integrated collaboration framework. Lotus Notes was first introduced about 20 years ago. Today, over 10,000 IBM Business Partners worldwide provide integrated solutions running on Lotus Notes. Lotus Notes is used by over 140 million users in over 46,000 medium and large organizations worldwide.

By 2005, Lotus Notes was up to version 7, and the user interface looked like this:



The Design Challenge

In the middle of 2005, IBM made the decision to completely revamp the Lotus Notes user experience. The design group assembled a core team of about eight people who worked full-time on the redesign of Notes 8 (three usability and user studies professionals, four user experience designers, and one visual designer). In addition, we drew upon the expertise of dozens of other colleagues in the larger IBM Lotus user experience community.

The team decided to focus on visual style, usefulness, attention to detail, and innovation as we tackled the process of completely redoing the user experience for this large, mission-critical product.

The Lotus Notes User Community

One of the challenges we faced was that of maintaining the loyalty of our user community, many of whom have been using Notes since the earliest versions. We realized that we had not only a challenge, but also an incredible opportunity to open our design processes to collaboration with these very users who care so much about the outcome. We connected with the user community by reaching out to existing groups of customers and by forming design partnerships that specifically helped feed design. The users were:

- Attendees at four yearly Lotus conferences, various executive briefings, and other Lotus talks
- Customers recruited by IBM for special partnership programs on various product areas, pre-released beta software tests, user experience issues, and site visits
- Other customers with whom we have cultivated relationships (Tracked in a customer contacts database)

- Customers/partners/users who follow external design blogs, such as the Notes Design Blog
- Usability study volunteers (our participant database contains over 1,000 people who have signed up to be invited for studies)
- Users recruited to match specific criteria, such as holding a specific role, having familiarity with a specific feature or competitive product, using assistive technologies
- Other users of Lotus Notes or competitor products who chose to provide feedback to us.

By the time Notes 8 was released, over 2,000 users had directly contributed to its design.

Categories of User Experience Methods Used for Notes 8

The methods used to maximize user input in the design of Lotus Notes 8 have been listed previously [4]. This paper focuses on how our methods contribute to more open design – allowing a widening community of users to directly drive design decisions.

We've divided the thirteen methods into three broad categories: one-way customer input, structured dialog, and open dialog. We discuss how we used the method and the pros and cons of each in turn below.

One-Way Customer Input

The four methods in this section are standard approaches to understanding user experience and feeding that understanding into design. These methods include limited or no dialog with the users, and no opportunity for the users to converse with each other.

1. Surveys

Early in the design phase, we conducted two large web surveys of current users of Lotus Notes. The goal of the surveys was to gain some knowledge of how users were working with specific Notes 7 features and gather feedback on some proposed design changes. Participants were recruited from our database of volunteers and through announcements on various external blogs. Eager for input to the new design, about 350 people responded to one survey and over 1000 to the other. We have no way to estimate the response rate represented by these gratifying numbers because users often forwarded the survey invitations to others.

Like most surveys, these were quick and easy for users to respond to. They were hosted online and completed via a web form. We received helpful and pertinent feedback that led to specific design changes in some feature areas.

However, there also were a number of drawbacks. The process of creating, piloting, publishing, and analyzing the results of these larger surveys was very time-consuming, which made it difficult to effectively fit the survey results into the extremely rapid design specification process. We found it difficult to recruit business end users (non-IT users) to complete the survey. Finally, the survey results were less useful in guiding design than we had hoped – some responses lacked enough detail for us to understand them.

Today, we use surveys, but typically smaller-scale surveys designed to address more specific questions. Ideally, we use them in contexts where we can also have additional dialog with the respondents to make sure we fully understand their answers.

2. Self-Guided Usability Tests

Another goal was to get in-use feedback from early adopters of Notes 8. We developed a series of tasks that walked them through the end-user features of Notes and then asked for specific feedback about those tasks. The tasks were posted in various forums that had been set up for beta program participants. Users performed the tasks using the Notes beta code available in test environments at their own companies.

This method allowed users to give feedback in their own time and allowed them to choose what was important to them. We received about 100 responses from 24 different participants. The feedback provided an early indication of potential issues for new users.

One of the drawbacks was that business end users were not likely to respond since beta code generally isn't deployed to them. Another drawback was that the actual responses received were often very brief and difficult to interpret. In refining this method for future use, we'd need better motivation for users to participate. We would also change the task sets to be shorter and narrower in scope. The tasks we used for Notes 8 included multiple sections with 10 or more tasks per section. An overall drawback to this method over other methods is that we don't really know what respondents are doing when they respond, especially if they misinterpreted the question or answered about something else that was on their mind.

3. Customer Feedback during Product Use

All Lotus products, including Notes 8, contain a built-in feedback mechanism. Users who wish to give feedback on the product or on the information in the Help system, submit their comments from a menu item

within the product. This menu item takes them to an online form where they can describe their problem or comment, as well as indicate how it is affecting their work. The feedback is collected, stored, and analyzed in a Lotus Notes database; it is then routed to the appropriate part of the development organization. All feedback is anonymous. To increase use of this feedback mechanism for Notes 8, we posted a reminder on the Notes Design Blog (described below). Notes now receives about 100-125 items of feedback per month.

One advantage of this method is that it provides users with an expected, industry-standard mechanism to provide feedback. It gives end users a voice where they otherwise wouldn't have it, and it allows design and development to hear from those users while they are in the midst of their task. Collecting information while people are using the product helps us to learn about problems we may not have known about.

So far, however, we find that the submissions require significant post-processing to be routed properly. Occasionally, users don't supply enough detail for us to make good use of the feedback, and because it's anonymous, we can't ask them for clarification.

4. Icon Design Experiment

One final method in this category is a reaction-time experiment we conducted to answer a specific set of questions about icons in the Inbox. We'd received feedback from the user community that the Notes 8 e-mail inbox was difficult to scan for certain items, such as calendar invitations. So we measured the time in milliseconds required to find target messages on screens with different icon designs. Twenty-four participants did 72 trials (9 trials in each of 8 conditions

based on the design and size of the icons). We also collected preference data from each participant.

Results demonstrated significant improvements in scan time and preferences by making the icons more distinctive. We used the results to redesign the icons used in the e-mail inbox and to advocate for their use.

It was refreshing to do this timed study, as we've seldom had occasion to use this kind of rigorous experiment in support of usability. However, it had serious drawbacks. It was time-intensive to develop the screens and software to support the test, we couldn't test all variations of the icon choices, and even the clear data we obtained didn't overcome the preferences that certain managers had for the existing icons.

We succeeded in convincing development to use the more distinctive icons by augmenting the experimental data with positive customer feedback on the new icons when we solicited input on them from design partners and in the Notes Design Blog (see below).

Structured Dialog

This next set of four methods we've called "structured dialog" because in each case, there is a significant two-way component to our typical use of the method. Users provide feedback in a specific way, but we always include conversation between the users and the user experience professionals as part of the feedback.

1. Usability Testing

In the development of Notes 8, we conducted more than 475 usability test sessions. In many respects, our purpose and methods were typical of usability testing in most companies (Dumas and Redish [5], Rubin [6]):

- Our goal was to discover as many usability problems as possible, get them fixed, and retest to verify the solution.
- We began testing as soon as there were prototypes or small features that functioned well enough to support a test session.
- We prepared a set of tasks that exercised the features we needed to test, stated each task as an end-user would think of them, and then asked representative users to think aloud as they worked through the tasks. Sessions typically lasted about 2 hours.
- The test administrator interacted with the participant enough to make sure we understood what the participant was doing and thinking, sometimes gave hints as needed if the participant got stuck.
- At the end of each session, we asked for post-test usability ratings and other comments.
- We observed the sessions either locally or remotely and recorded voice and screen with Camtasia.
- We didn't write formal reports of our findings; instead we mainly made lists of issues, sometimes with Camtasia clips to illustrate them, and used the lists in working meetings with development, adding the agreed-upon resolution and links to the usability issue-tracking and problem report databases as we went.

Our usability testing had two features that made it more open to dialog with the user community. We created a realistic multi-user test environment and took it on the road to customer sites.

USABILITY TEST ENVIRONMENT

Because Lotus Notes is inherently about collaboration, we needed to test collaboration (not just "operating the

UI.") Therefore, we built a fully-functional user environment as if it were a home-improvement company named "Renovations." We defined an organizational chart and address book of about 80 employees in 6 different departments, all with names, job roles, and user IDs.

This was important because it meant that we (or our test participants) could log in as any of the Renovations employees, send e-mail, use instant messaging, set up meeting invitations – in short, exercise all the features of Notes 8 in a realistic, interactive way.

Then for each test, we generated a realistic set of mail messages and calendar invitations. During the test sessions, multiple test participants could interact with each other, or test administrators could play the part of other Renovations employees and chat or e-mail with the participant. The only drawback is that since it's not the participants' own system, the content doesn't look as familiar as if it were their own.

Usability testing continues as new versions of Notes are developed. Our entire Renovations environment resides on a powerful laptop (or laptops). Before each test series, we update the client and server software to whatever version of Notes we're currently testing. Between sessions, we revert the systems so each participant starts their session from the same point.

TESTING AT CUSTOMER SITES

Another important aspect of our usability testing is that we test where the users are. Sometimes we tested in the usability lab, but we were not always successful in recruiting appropriate users there. We tried testing using remote screen sharing to allow participants to use

our test systems from their own offices or for us to view their screens, but we found that e-meeting tools did not always work smoothly with our test software, and it was difficult for us to clearly understand the users from afar, especially when something unexpected happened. We still do remote testing when necessary, such as with certain users who need their own assistive technologies, but it is not our preferred approach. We obtain better results when we set up our test systems at conferences, customer events, and best of all, customer sites. We take "Renovations on the Road."

Going to customer sites (after coordinating with someone there who understands our goals) allows us to test users who are important and representative of that company, users we don't typically reach when inviting participants to come to our lab. Because we are on site with customers, our methods are visible to them, they observe the care with which we test, and they see a "preview of coming attractions" in the new features we're testing. Also, we can easily combine the testing with other activities that open the dialog with the user community, such as customer roundtable discussions, contextual interviews, and presentations to customer user groups.

2. Color and Texture Identification

Another method used by the design team very early in the design process involved identifying the colors and textures to be used in the new user interface for Notes 8. In an extensive set of iterative studies, the designers first identified the core attributes that marketing wanted to make sure the new product conveyed: People-oriented, business-oriented, modern, fresh, simple, agile, familiar, reliable, and fast. Then the visual designers surveyed target users about which magazines they read (for pleasure, work, or

when waiting) and created 5 mood boards by gathering images from those magazines that reflected the attributes we wanted to convey. The mood boards, and then wireframes based on them, were tested with all the target user groups and tuned until they scored high on the marketing brand attributes.

The identification of color and textures was begun well before Notes 8 was even announced. Two important aspects about it were the innovative way that it involved users in a structured dialog to define the visual aspects of the new UI, and the fact that it resulted in very early agreement on the visual design direction.

3. The Personas

While designing for Lotus Notes 8, we were focused on keeping our business end users in mind, even when we couldn't talk to them. To help us do this, we created three personas that represented our target users for design and development to refer to when discussing, creating, and building specific areas of Notes. Using the general approach described by Cooper [7], each persona was developed based on multiple interviews with Notes end users and reviewed with members of the user community. Samantha Daryn is a Promotions Coordinator, Ted Amado is a VP of Merchandising and Marketing, and Betty Zechman is Ted's Administrative Assistant. All of these personas work at Renovations, the fictitious company described earlier. Samantha, Ted, and Betty use all of the main areas of Notes (such as Mail, Calendar and Contacts).

These personas have permeated our design and development culture; specifications and user stories were written in "Samantha can" language, persona photos were placed in conference rooms throughout the

building, and usability tests were based on tasks the personas would perform. Typically, when design, development, business partners, and even customers discuss features and ideas, they fondly refer to these personas. Everyone knows Samantha!

Our customers are seeing the impact that persona-based design is having on the product and they want to be sure that their own usage is represented also. Because of that, we have been creating additional personas in different user roles and from different companies and parts of the world. We also update our existing personas to be sure they stay current, accurate and representative of our target users.

4. Specification Reviews with Customers and Business Partners

The design specifications for features being included in Notes 8 were reviewed by specific customers and business partners prior to development. All these customers and partners were chosen for their interest in the Notes Client User Experience and are under non-disclosure agreements. Approximately 20 of these specification reviews were conducted in person, at conferences, and remote via conference call and web conference. Materials shared were written specifications, illustrations, and early prototypes.

The main advantage of specification reviews with customers is that they provide a way for the user community to drive design, so their needs are more likely to be reflected in the final product. The feedback received is fed into one or more iterations of the design, prior to completion of the specification. The more iterations that are necessary to get the design in an optimal state, the more reviews we conduct. A

strong moderator is required when running these reviews so that all parties have the opportunity to participate and the meeting time is used effectively.

One disadvantage with this method is that there is little interaction between the user and the design. Because drawings can only simulate so much, there can sometimes be problems after the feature is built that the drawings didn't illustrate.

Open Dialog

This third set of five methods involves open dialog within our user community, dialog in which we as user experience professionals participate.

1. Contextual Interviews/Round Table Discussions

In order for us to design and build features that users want and need in their daily jobs, we need to first understand who our users are. For Notes 8, we visited numerous users in a variety of industries and countries, to get a firsthand understanding of how they work. Our method was different for each visit, but similar to those used widely by other practitioners (see Wixon and Ramey [8]).

While we were on site, we watched users work, interviewed them about their job responsibilities, and often conducted round-table exercises to discuss existing problems, or to demonstrate new feature ideas. The goal was to learn about our target users and representative industries, and to gain insight into any existing international and cultural differences that we'd need to account for when designing product features. Many times these interviews were used to help us define our Lotus Notes personas (Ted, Betty, Samantha) which are discussed in an earlier section.

The largest advantage to conducting contextual interviews and round tables is the in-depth understanding we gain about what our target users are responsible for on a day to day basis. We see what other tools they are using and observe them working in their own environment. If we understand what they are trying to accomplish through their job requirements, we're able to make informed decisions about how they'd use our product, and what our product needs to provide to them, in order for them to be successful every day. In addition, when you encounter a user performing their job in their natural surroundings you observe different working styles, physical setups and building aspects that you wouldn't typically expect. This level of information paints a mental picture for you that you're unlikely to forget.

Some areas of concern are cost of travel, difficulty of locating customers to visit, communication between time zones, complexity in scheduling onsite visits, and language barriers. It's important to record these sessions and bring with you any pertinent people to understand customer deployment and environment issues. It is also important to work with any current sales or support representatives to be sure you understand the current relationship status with this customer, and that you are clear with the customer about your goals, intentions and job responsibilities.

2. Prioritize Features with Key Customers

The goal of feature prioritization is to incorporate customer priorities into decisions about which features to include in an upcoming release. Notes 8 started with approximately 4,000 feature requests assembled from many sources including customer requests, product management, development, and usability.

After a couple of internal rounds of paring the features down and re-stating each item from the perspective of one of our personas (for example, "Samantha can..."), we held prioritization exercises with groups of customers. These exercises were held at customer sites or conferences. Depending on the scope of the exercise, a session might require an hour or a full day. For each exercise we printed the individual items (sometimes 200+) on sticky post-its. We then facilitated small groups of customers in sorting the features into categories by priority – P1 (high priority), P2, P3, or Trash (for "not recommended" items). Users were also allowed to add items they felt were missing.

During some of the exercises, we limited the number of items that customers could rate highest priority. This forced customers to decide what was really critical.

After all the features were in a priority category, participants identified those they considered to be the most critical in their environment. At the end of the exercise, the small groups gave post-discussion presentations explaining their reasoning and consensus. We took this information to development and factored the customer consensus into the decision-making process about which features to include.

We found this feature prioritization extremely useful because we understood much better how customers thought about these features, and their consensus carried a lot of weight with development as the feature decision-making process proceeded.

This is not a method that's easy to do. There is a considerable amount of preparation, the small groups need to be managed to make sure that one person

doesn't monopolize the input, and the interpretation of results requires an understanding of the logic that led to the customers' prioritization.

3. Customer Discussion Forums

The level of customer excitement about Notes 8 led to lots of input in discussion forums used by participants in beta and partner programs. In order to stay in touch with issues reported by early adopters or testers, we regularly participated in these forums and used them to post specific design-related questions. (These forums were also where we posted the self-guided usability tests described earlier.) We kept track of the design and usability comments by entering them into our issue-tracking database.

Participating in the discussion forums was useful because it validated issues we were seeing elsewhere, raised awareness for developers (who took forum feedback very seriously and often used it to escalate the process of resolving a problem), and generally gave us broad input that wasn't limited to the areas we focused on in usability testing.

While the customer feedback forums were important, they weren't the richest source of input. In our case, there were way too many forums to monitor, as IBM had set up different forums for different programs and different companies, and they all had different privacy levels. We found it tedious to sort through, capture, and process the input, and there was a low signal-to-noise ratio for the effort. Often (especially during the beta timeframe when design was already working on the next release) customers were discussing areas that were not related to what design and development were working on at the moment. Sifting out software bugs

from user experience input was also tricky and time consuming.

4. IdeaJam

Another source of dialog within the user community came when one of our business partners created a web tool where customers could request and vote for specific features. This tool is called IdeaJam (www.IdeaJam.net) and was built using a Lotus Notes template. We monitor the information coming in and also link to other sources that could provide additional detail to promote the request. This forum helps us gain insight as to what additional features customers are looking for and which features are the most popular. It provides an additional line of communication with our user community.

However, as with other of our methods, this open feedback may not be representative of all users; it is in English only, typically the more technical users tend to post requests and vote, and a request may attract a lot of votes but not necessarily be ideal for the product and its strategy.

5. Public Blogs

Perhaps the most fruitful source of open dialog with our user community was (and is) the Notes Design Blog, begun by Mary Beth Raven, the Lead User Experience Designer for Notes 8 (www.NotesDesignBlog.com). The goals of this blog are to get quick feedback on design questions and to create a public face to the design process so our interested customers can understand and participate in the design.

Members of the user experience team post entries to the blog a few times a week and the blog gets about

20,000 hits a month. When questions, thoughts, or designs on hot topic items are posted, lots of responses can come very quickly. For example, one question we were interested in got 48 responses, 40 within the first day. We also use the blog when recruiting users to participate in user studies activities such as surveys, interviews for personas, and usability tests.

The blog has generally been very useful, often bringing out points of view we hadn't anticipated and resulting in a consensus among the user community. However, the blog has several drawbacks, too. Again, it's often not typical end users who follow the blog and many of these people we also hear from in other venues (such as other forums and conferences). Because it's public, we're somewhat limited in what we can share, and some of the respondents are limited in the details or opinions they feel comfortable posting.

Discussion of Opening the Design

We've briefly described the main user experience methods used during the redesign of Lotus Notes. Many of the methods were traditional methods, extended in some way to allow more open dialog with the user community. Other methods were primarily ways to encourage useful, timely, open dialog within the user community and to use that dialog to drive good decisions about user experience. Here are some benefits and challenges to the use of open design:

Benefits

- Broader knowledge of users and their work contexts. We obtained more complete and detailed use cases, clarified user roles and tasks, broader understanding of users' experiences with Notes and other products they use, and new constraints we likely

would not have discovered in other ways. We also were able to reach deeper into customer sites, as the users we were interacting with often connected us to other users, or even polled or recruited other users, in their organizations.

- Richer design ideas. Users shared their ideas and their experiences with products we don't use. Some users could also share the design choices they made as they developed their own applications and solutions that work in their environments.
- Customer consensus on design direction. Design objectives and constraints were fully discussed within the user community.
- Professional partnerships with key customers. We can count on them to share opinions and they expect us to be accountable for our decisions.
- Increased customer loyalty. Many members of our user community depend on Lotus Notes for their own company's success, so allowing them to play an appropriate role in shaping its success builds their trust and confidence in the outcome.
- Better professional interconnections inside of IBM. For example, our interaction with the user community brings us closer to IBM support and marketing, as our work also contributes to customer satisfaction, loyalty, and brand identity. The boundaries between usability, design, and development lessened as we all joined together in the dialog with our user community.
- Fast, flexible methods. The approach we took of going to the users required us to be flexible and opportunistic in the methods we employed. We found we could have multiple sources of open design happening at the same time.

Challenges

- Open design feedback often comes from a biased sample of the user community. In our case, the bias tended to favor IT professionals, people who felt positive towards Lotus Notes, customers with existing service and partnership relationships with IBM, “important” customers, people who speak English well, and people who simply liked the whole process of participating in the design process. Some bias in these directions is probably acceptable and appropriate, and we did attempt to remove inappropriate bias. We still developed full use cases as part of our design specifications. We heavily leveraged our personas by asking whether the suggestion was appropriate for Samantha, Ted, and Betty, and by developing new personas when we decided that an important user segment was under-represented in design decisions. In our issues database, we kept track of the sources and number of times we heard each issue, and whether the input came from end users; this helped us determine how representative the input was and what weight it deserved in the business decision-making process. Finally, in many cases, the user community helped decide. In the blog, feedback forums, customer design reviews, and prioritization exercises, for example, other community members could comment and argue with anything posted. We could offer information on why the design was as proposed, and we could take advantage of the reasoning and consensus that emerged.
- Within the design and development process, some customer feedback carried more weight than others. To state the extreme, a fairly trivial issue raised by a large customer could outweigh other important, long-standing issues. It’s hard to know whether this dynamic always properly balanced the legitimate

bottom-line business concerns with the appropriate development of the Notes user experience.

- Open design data are typically qualitative, anecdotal, relatively unstructured, and often difficult to categorize and carry forward. For user experience people who prefer metrics and tightly-controlled parameters, this would be frustrating. We typically defined the area to be discussed (e.g., the question in the blog posting, the scope of the specification being reviewed, the task being attempted by the test participant), but then allowed the user to frame the dialog within that topic area. We typically did not attempt to deeply analyze or categorize the input. Instead, we accepted the feedback as it came, continued the dialog until we understood the point fully, and allowed a consensus or theme to emerge.
- Amount of user input was sometimes overwhelming. When the customer forums, blogs, site visits, usability tests, and conferences were all generating copious data simultaneously, we often had difficulty dealing with all the data. Small points may have gotten lost in the flood. Especially the forums and blogs often deserved replies from us, and we could not effectively monitor and respond to all the postings. We took the approach of tapping into the stream of the community discussion, rather than attempting to thoroughly and equally deal with every piece of input. We also brought together the issues and feature requests mentioned in these various feedback sources by entering them into our issue-tracking database, where we could then see whether others had reported similar items.
- Directly dealing with customers occasionally put us face to face with issues that were not our responsibility or expertise. For example, when we visited customer

sites, we were careful to coordinate with that customer's support specialist, but occasionally there were customer satisfaction issues that impacted the cooperation we received or that pulled the dialog into areas we were not well-equipped to resolve. It's important to plan ahead how to handle such situations if they arise. Our approach was to sympathetically but firmly refer those issues to the appropriate IBM person.

One note: We found that the success of these more open design processes depended on a skilled user experience team, knowledgeable about the product, capable of judicious filtering to ensure that the most important customer information influenced design and development, and successful in maintaining an open dialog with users. We were fortunate to have such a team. We learned to be more effective interacting with experienced and technically knowledgeable customers and to keep the community dialog open. Because we developed a good global feel for what users in general needed and wanted, we were well-equipped to have a balanced voice at the table where business and development decisions were being made.

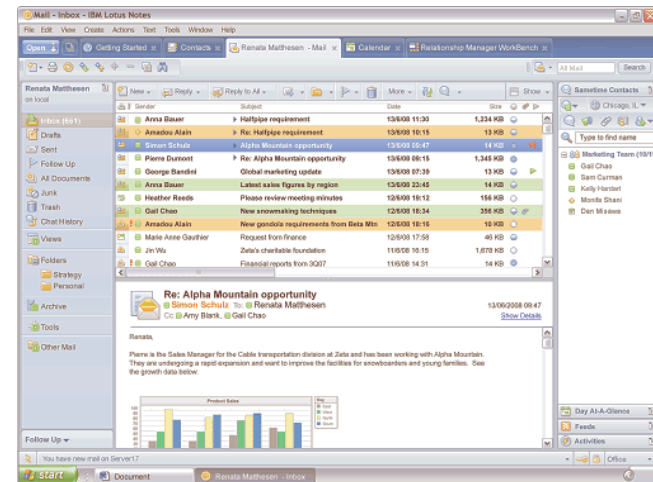
Customer Reactions to Notes 8

Was the redesign of the Lotus Notes user experience successful? We believe so! On the right is a sample screen shot of Notes 8.0, first delivered in August, 2007, about 2 years after development began.

Customer interest in Notes 8 has been extremely high and responses have been overwhelmingly positive. Participants in our activities often eagerly asked when they could use Notes 8 for their own work. When Notes 8 was first shown at Lotusphere (IBM's conference for

Lotus Notes customers), the audience gave a rousing standing ovation.

Analysts were similarly enthusiastic. For example, an analyst from the Burton Group said, *"Most significantly, the Notes 8.0 client is a radical improvement in user experience and capabilities.... Critically important for IBM, Notes 8.0 is likely to lead to significant information worker demand – i.e., to result in end users asking their information technology counterparts to upgrade to Notes 8.0 sooner rather than later."*



Participation in the Notes Design blog continues, and there have been more than 20,000 postings in the Notes/Domino 8 discussion forum on IBM DeveloperWorks. We have more than 40 public references for 1000+ seat Notes 8 deployments.

Because Lotus Notes is important to IBM's bottom line, it is gratifying to see that revenue and number of seats

on maintenance contracts have both increased significantly in the last two years. The deployment rate of Notes 8 has exceeded that for previous versions. Approximately half of our customers have deployed Notes 8, sometimes skipping over an entire release to get access to new features and a modern look and feel.

Overall, we believe that opening design to fuller collaboration within the user community had an enormously positive impact on Lotus Notes 8. We intend to continue revising and using these methods as we develop future versions and other IBM Lotus products. We believe other product development organizations could profit by adopting or adapting some of the approaches described here and similarly opening their design processes to their user communities.

Citations

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