JamJar Conceptual Review

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Overview

This document is being prepared in order to share many of the thoughts and concepts that have been bandied about these past 28 months in the preparation and completion of the Labs Release of JamJar. JamJar is the product of a highly functional small innovation team at Adobe; we have experimented in a number of new directions as we sought to bring a collaboration service to market that would resonate with Adobe's customers in a way that static, rigid group interaction solutions have not.

The 'design center' for JamJar was based around a small handful of key concepts. These concepts created the mission, focus, and goals for the team as the shape of JamJar was formed across several months and iterations. These core concepts include:

Persistent: While it is fun to use JamJar as a real-time, synchronous collaboration client – the customer requirement we fulfilled was that the content stored in a JamJar space be persistent across sessions and access points. There was and is still a need for easy to access personal 'stash spots' on the web for group exchange.

Private: JamJar is not about using the web to broadcast information. It is also not about finding your next date, fishing buddy, or 9,000 friends. JamJar is about serving the handful of tight social circles that each of us have that may need to exchange information for a short project or event as well as serving the long lasting exchanges of social groups or teams that may exist for years if not decades.

Graphical: This term covers many concepts. It covers the issue of being able to literally touch the content you are manipulating on the web and drag it around. It covers the fact that color, imagery, fonts, and mixes of media are necessary to express our ideas and engage others with them. It covers the fact that for many of us, a graphical system is inherently easier to use and that to date solutions that embrace this concept have been limited and rare. And not to be overlooked, the graphical nature of JamJar makes it an enjoyable experience. It provides a 'pleasure point' rather than simply addressing a customer 'pain point'.

Proximity: With *'Graphical'* comes a slew of new potentials and requirements. Now a set of pictures can accompany a discussion. The file being shared can sit next to the note that describes the recent changes. The URLs can reside alongside columns of text in a way that allows for a grouping of content based on its common purpose rather

than simply its shared media type. In turn, this requires changes to the concepts of how information is structured, laid out, and navigated.

A final, but controversial design center of JamJar was the necessary and forbidden ability to be messy. There are no rules, no lists, no mandatory templates. The authors of a space can determine that for themselves. It can become part of the social contract of the space. It can be a new area where we all communicate rather than conform.

Setting the stage:

The JamJar Project was officially started at Adobe in March of 2003. It was the outgrowth of a concept that I had been debating with Clyde McQueen for over a decade. That original concept was to develop technology that would transform the existing 1990's desktop metaphor into a scrollable, accessible, scribble-able, collaboration canvas that would allow multiple users access to the backdrop of our personal computing spaces. This would in essence become the new metaphor for the network, with file sharing, messaging, presence, and locate-ability built in. But that was before the web and the complications of creating such an environment over tokenring networks and dial up connections was infeasible.

With the onset of the consumer Internet in the early 90's we figured our idea was firmly in the hands of a larger force as the web was evolving at what was being referred to as 'internet speed'. Ten years later, I found myself still waiting for the Internet to grow out of its text based infancy. Curiously, the structures that allow HTML to produce more graphical user experiences were making it more cumbersome to create these environments rather than easier.

In 2003 a set of new phenomena began to take root on the web that opened the door for the exploration of the JamJar concept. First off, connection speeds to consumers were migrating off dial-up with great speed. Secondly, the concept of Blogging was beginning to take hold – and with it an expectation that the customer experience of direct editing of web content on the web and through the web would be irreversible. Thirdly, a number of new graphical web technologies like Flash and SVG were becoming robust enough to allow web environments to break ties completely with HTML and go completely graphical and Cartesian.

By the time JamJar was in development in early 2004 the foundations for Web 2.0 were in full swing. There were shared whiteboards, simple word processors, calendars, and to do list managers popping up in browsers from garages all across the world. But something was still missing: the ability to interact with these different pieces of functionality in a single environment based on a common set of permissions and invitations.

The version of JamJar that is posted on Adobe Labs represents a fourth generation technology. The initial version was written simply in SVG and Java. A subsequent rendition leveraged those two technologies with a stronger server side component on a dedicated client. With the acquisition of Macromedia by Adobe, a switch was made to using Flash, Flex 1.5, and Flash Media Server. This release version is based on the latest Flex2 technologies including Flash Player 9 and Flex Data Services. It is now July of 2006.

The Experience

The overarching goal of JamJar was to leverage these new graphical and collaborative technologies into a simplified, smooth, playful user experience. Because my role as an Entrepreneur in Residence (Seed Business Leader) is to push the boundaries not only of the user experience – but also of the comfort zone of the corporation – we wanted to break with many of the norms that had been prevalent in other Adobe products. At the top of the list was the desire to break ranks with the confines of the paper world. JamJar does not propose an eight and a half by eleven page size when you establish your canvas – but rather a limitless space to work with. In order to assist with navigation and to ease the anxiety of vast white spaces we implemented 'Grey Matter' – an expanding rectangle that continues to accommodate the content that you are assembling your content. When a new space is created, a rectangle of Grey Matter is carved away to reveal the canvas. This open area we warmly refer to as The Mow (did you ever mow just enough of the yard to set up the croquet set?).

Beyond the mow and the grey matter is nothing but rim. The design goal of the user interface for JamJar was to keep the content of the shared space as the most prevalent visual attribute of the experience and to invent a method for the other controls that could be quickly accessed and then put away. The result is the five pods that surround the screen. Each pod has a collection of functions that facilitate similar aspects of tasks common to creation, modification, assembly, or navigation of JamJar spaces. The pods appear on screen playfully, disappear with a whoosh, and never get lost.

The final intent of the design of JamJar is to offer our authors and participants a modern application-like experience within the familiarity of a standard web browser. This meant supporting familiar things like menus and dialogs rather than flipping back and forth across web pages with the strong chance of becoming lost or confused amidst various configuration and administration settings. The goal was always stated that once you were in JamJar, you would not have to leave unless you wanted to.

Communities upon Communities

The web world today is all about communities and collaboration. JamJar's goal is to play in this new environment at several levels. The first is obvious: we allow you to set

up a shared environment where your community can communicate, share, and interact.

The next level was to allow the technical community a sandbox in which to experiment with new collaborative concepts. Do you want to create a new tool that allows a small group of people to interact in a new way on the web? With JamJar as the environment more time can be spent on developing the experience and far less time on developing the hosting infrastructure, permissions, access rights, synchronization, data storage, etc. This level of collaboration was designed to be implemented through third party widget extensibility. While this area of JamJar was never fully realized, you will notice the PhotoFramr widget that allows one to display images from a Flickr™ image library directly in JamJar and add special ornamentations. This widget was the result of an engineering project at Seattle University. They were able to experiment with connecting to a web service and sharing the contents in an environment where the focus was on what's on the canvas, not on the technology below the canvas.

Similarly, investigations are ongoing to using JamJar as a method for integrating photo sharing with consumer photo projects as well as using JamJar for creating custom client portals during sales cycles.

Focus Widely

As you begin to understand the impact of these community goals you also begin to understand the conundrum of JamJar. How do you provide a useful web solution that allows for new development opportunities to emerge while also fulfilling some set of targeted needs from the onset? The friction from the beginning of the project was to provide enough ubiquity that the product could have wide spread adoption, while at the same time solving a real present need for people on the web. The mantra of the team became "focus widely." It was always tempting to isolate that single workflow, user pattern, or pain point and provide a solution that would meet those needs (and quite possibly only those needs). A second mantra emerged. "No hot dog cookers." No products that serve one need so well that they serve no other needs at all. (have you ever tried to warm up a bagel in a hot dog cooker? It can be done, but it's not pretty)

(do) **More** (interaction) **with less** (people)– *the anti MySpace*

So the focus of JamJar became not the functionality (after all, this can be amended by the wider technical community) – it became the environment itself as the main compelling feature of the solution: an easy-to-use place where a small group of people can privately stash stuff. And as this thought was gelling in our minds an internet phenomena occurred. MySpace arrived. The concept of direct interactive publishing to the web in sort of an 'everybody hang your own shingle' metaphor swept through the bedrooms of teenage America. Bear in mind, web phenomena do not occur that

often – and when they do they attract a great deal of attention and inspection. For a period of time, they are the center of the universe and everything else stands in their glow.

It was time to push the envelope again in the only way that made sense. Since JamJar was intended for private exchange and MySpace was focusing on massively public publication it was obvious that we needed to occupy the opposite corner of the two by two marketing matrix. If MySpace was about many, we were about few. If MySpace was about public, we were about private. Maybe it was my age, maybe it was my Meyers Briggs social vector, but we were more interested in creating a product that allowed you to have more meaningful exchange with the established social circles than to help you meet nine thousand new friends. Our moniker, "Accomplish more with the people you know", grew out of that time and against those odds.

The big bet that we placed with JamJar required a sideways look at the web. It required second generational thinking. It has been obvious for some time that creating web experiences that pull in lots of people can be largely successful. But what if we only allow small groups of people to get together? Are there lots of people who are interested in creating spaces for small groups and inviting them to come together? We placed the bet that this is closer to the way human beings want to interact with each other, and it was about time that the web caught up.

Purpose reexamined

After 28 months of thought, discussion, development, migration, and reconsideration, what then is JamJar? This became simple and clear in a conversation with John Warnock earlier this year. JamJar is not about the pods and the menus. It is not about the widgets and the sounds, although all of these things are necessary. JamJar is about filling the simple need for 'shared paper' on the Internet. It is about providing a forum for exchange that is intentionally without form. Anyone who needs one can simply go and tear off another sheet for them self. This includes the mom whose kitchen whiteboard is just not big enough to share travel info and party plans with a sister 2 states away, as well as the financial consultant who just needs to post 2 files and get a client response while keeping an interactive record of what has been posted and when.

Shared Paper

A key attribute to this new 'shared paper' is ease of use. This has always been comprised on the team by two leading vectors: Accessibility and Roundness. The former is delivered by keeping an eye on the details of workflow, presentation of steps, simplicity. Roundness encompasses the Zen of keeping the product true to itself - equally deep across all functions, equally consistent across all the visual metaphors, equally deliberate in the capabilities and presentation of those abilities. The need for

shared paper on the web is being borne out through the ongoing success and innovation of products like wiki's, shared word processors, and simple shared list managers. Each of these different technologies, including JamJar, is taking a unique approach toward the metaphor that it is using. Which markets are attracted to which concepts are yet to be seen. Clearly, collaborative web shares of digital content will exist for some time to come.

Customer revenue model of payment for purpose (again, a need for simplicity)

The product concept would not be complete without an integrated and viable revenue model. A strong desire existed to realize revenue directly from product benefit. No long annual lock in, yet it would be impossible to ask for upfront payment for the benefits of a service that our customers did not understand. We struggled for months trading off the benefits and drawbacks of subscription models versus advertisement methods. Subscriptions had the requirement of offering free service for a period of time for the customer to become familiar with the service and the value. On the other hand, advertisements took up valuable screen real estate and offered limited value without some context of the customer's content.

We eventually decided to think outside the tyranny of the 'or' – as Geoffry Moore refers to it - and adopt an 'and' strategy. Advertisements from Google's standard AdSense program would provide the 'free-use' variant of the product and subscriptions would be available for customers who wanted to utilize the additional screen real estate or in the future wanted to sign up for additional premium services. The context for the ads would be provided by submission of only the title and description of the space that had been created. No additional 'scraping' of our customers would be submitted (this ended up also having the beneficial utility of allow advanced customers to play around with the results of the Google AdSense engine).

When the decision was made to offer JamJar through Adobe Labs, the plans to implement the subscription components were removed and an 'ads only' version of JamJar was readied for public inspection and tinkering.

Innovation and Team

The creation of this kind of new product requires a special kind of team, made up of individuals who share several common values and goals. The depth and breadth of the skills needed was daunting, given that the team size needed to stay quite small. The mix of talents had to be deep enough both to get the job done and also engender the respect of the other team members. The roles had to be clearly defined to span the technical expanse of interface, client, widget development, widget runtime, and server architecture and data services. Full time, on team, user interface design was required from the start. Product management for both coordinating evolving product details

and business planning was essentially a continuous five-hat job. Superb platform planning and technical management as we moved through four different development environments was crucial for hitting milestones and maintaining morale.

It is estimated that a team working on a project that is truly innovative makes nearly twenty times the number of decisions on a daily basis than a team that is extending a known product line with a predetermined business model. This level of collaboration, consensus, and communication requires the most out of a team. The JamJar team delivered against those steep requirements.

Future directions

A sure sign of a fertile innovation market is when there are always significantly more product ideas to incorporate than resources to apply to them. What widget should be added next? What improvement do we want to make to the pods? How should the server components be changed in order to scale more smoothly?

Some directions are clear for us. Flex2 provided a robust, quick, and highly graphical framework for the development of JamJar. And while there is a shift in mindset from programming desktop applications to programming interactive web applications – the maturity of this most recent release enabled us to produce a solid service in a short period of time.

JamJar is offered at this time knowingly and intentionally incomplete. The fundamental capabilities exist to explore collaboration and sharing between groups of peers and colleagues. Components of the JamJar technical foundation will likely see their way into a variety of Adobe products – from web conferencing to document solutions.   The service of persistent, private, and personalizeable exchange of digital content in a graphical and easily accessible metaphor is presented not as an experimental technology from us – but rather an experiment for all of us to play with and through which the next behaviors of the internet will be formed.

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