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To the unit-holders of betaworks studio:

2011 was a very good year at betaworks. As I mentioned in my letter in December, we built some wonderful new companies in-house and invested in twenty six early stage companies. We had three exits and completed our first capital distribution, or dividend. We're crossed some significant milestones in the life of our company. Our successes, with the strength of the companies we continue to work with, demonstrate the value of our studio model — an operating company with a valuable and complementary investment component.

Betaworks is a platform that accelerates early-stage company building. Our "secret sauce" is not easy to replicate, as it comes from an intensive hands-on approach to studio companies, deep knowledge of social media from many years of experience, and leverage gained by a network of investments in the space. We believe that we are entering a new era in on-line innovation and, as is so often the case, the companies and the structures that led the last round of innovation will not lead this round. We believe betaworks is uniquely positioned to build assets that define the next chapter of the Internet.

This letter first outlines how we see the market evolving, then dives into betaworks in 2011 and concludes with a look into 2012.

the environment is changing in fundamental ways

2011 was a banner year for social media. Four key insights emerged last year:

1. Proliferation of devices that are connected to networks is accelerating the rate of innovation
2. Connected devices are enabling real-time services and real-time networks
3. Networks of *people*, *ideas* and *participation* matter more than networks of devices
4. Great design has become increasingly vital as computing gets less expensive

I will address each of these in turn.

1. Proliferation of devices that are connected to networks is accelerating the rate of innovation

As people and devices live increasingly connected lives, opportunities exist to develop and build companies around the networks they create. Innovation in products and services is

aided by decreasing costs of computing, storage, and networking. George Colony, CEO of Forrester, talked about this in a presentation at Le Web late last year in which he plotted efficiency curves for processors, storage and the network. Storage is riding an efficiency curve that is approximately 25% steeper than that of processors (i.e., storage costs are halving approximately every year, and processors continue on the slightly slower path of Moore's law). In contrast, network costs are dropping at a *much* slower rate.

Despite the spread of home broadband and the advent of fourth-generation cellular networks, we are seeing ever-more powerful devices (mostly phones) attached to ever-more powerful and inexpensive servers by relatively narrow (3G and LTE) pipes. It is easy to attribute the rise of smart-phone "apps" solely to genius marketing, but we believe there's more going on here: apps bridge slow, high-latency connections and allow users to realize the full power of their devices through amazing host-based services. Mobile browsers have drastically improved in the recent past, but they still can't compete with native apps that provide immediate responses as well as access to the cameras, accelerometers, GPS and all the other sensors in a modern mobile device. Put another way, the slope and gravity of Colony's network curve effects what and how we build.

The proliferation of "smart" devices is astonishing. Within eighteen months smart phones and tablets have outpaced shipped units of PCs (see chart, source: http://bitly.com/yPf3FP).

Units Shipped Per Year
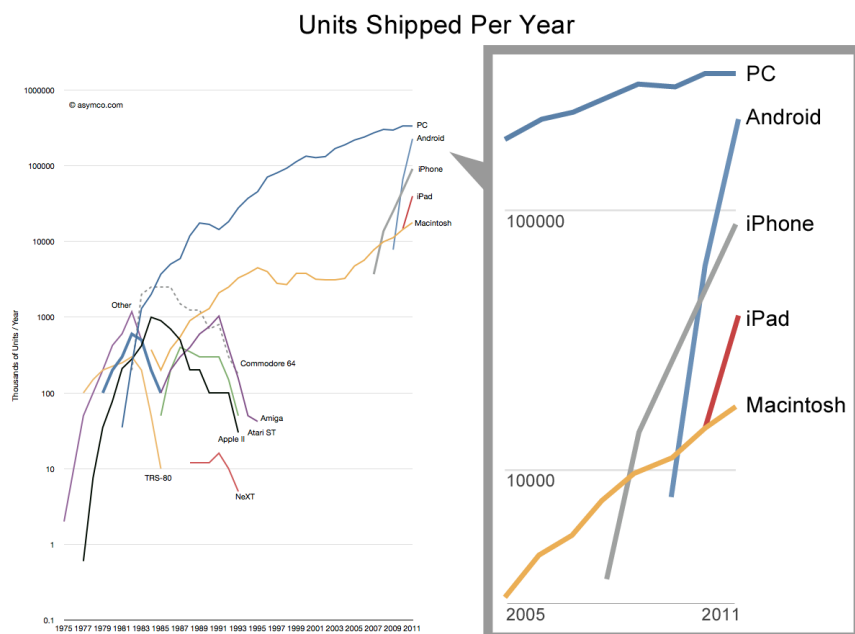
The global rise of the smart, personal device is taking place on an unprecedented scale, made even more amazing given the weakness in the global economy.

Undeniably, the global transition from feature phones to smart phones is underway. As this happens there are truly "device first" experiences — experiences designed specifically for the devices on which they exist.

There are an increasing number of simple, often single-purpose, devices being developed that depend on smart devices. The hub and spoke architecture frames device-based innovation. The Lytro's Light Field camera is a good illustration of this shift. Coming to market this year, the Light Field camera records the world and moves all the processing into the post-production software experience; creative expression is through the software, not the device. The transition in

photography that the Light Field camera represents will be arguably more fundamental than the shift from analog to digital. This is one of countless examples of simple, single-purpose devices that derive value through connections to "smarter" hubs. In this new world order, software will be the point of differentiation and value.

With respect to innovation on portable devices and hardware, as shown by the graph above, we are still on the steep upward slope of adoption curves. The software innovation curve, we believe, is equally impressive. Proliferation of devices that are connected to networks, coupled with the shift of value to software, is accelerating the rate of change of innovation. There is far more road ahead of us than behind us.

2. Connected devices are enabling real-time services and real-time networks

The existence of very smart, always-connected devices enables new categories of real-time services. We are approaching an inflection point at which the number of people and devices connected simultaneously to each other at a given moment fundamentally change the nature of communication. Dialing the clock back more than a decade, I remember working at AOL on its acquisition of ICQ, the first mainstream, global instant-messaging network. At the time, we were obsessed with the concept of "presence," meaning the shared knowledge that a person was on-line and reachable. The ICQ list of on-line buddies was a window into a real-time communication network that was fundamentally different from traditional, opaque communication tools like the telephone.

Presence was an early manifestation of the urge to be always connected. At the time, ICQ provided the knowledge of a group presence but was limited to one-to-one communications. Today, services provide group *conversations* as well as group presence. There is an intensity that is apparent in real-time group interaction, a reality we know well as humans but that the network is only now beginning to surface. New platforms are needed to break out of traditional workflows and overcome complexities in new product development.

Concurrent connections change not only the way we experience media or commerce, it also changes the substance and the essence of how we communicate. The shift to real-time group interactions — whether we call it the real-time web, the live web, the concurrent web, etc. — is profound, and its impact is only starting to emerge.

3. Networks of people, ideas and participation matter more than networks of devices

When I talk about networks of people, I'm referring to connections among people and among ideas, not links between hardware, servers and edge devices. The basic plumbing of the Internet and personal computing is still important, but we are now fortunate to take it for granted. What matters to us are the *social graphs*: the networks of people that exist in and across the social services and tools that people use. Connections made on Facebook, Twitter, LinkedIn, Tumblr or Path represent networks of relationships between *people*. An "*information*

graph", defined as a network of ideas, is created by the information shared within and across networks. Additionally, we believe there is an emerging "*participation graph"* that is created at the intersection of social and information graphs when users engage in *conversations* and share information, in real time, at scale.

The human networks we are building across services are increasingly studied, but we are just scratching the surface of the long term societal impact. One thing is clear: the rise of horizontalism (the decentralization of information production and exchange) across our society, and the consequent disruption of everything from media companies to governments, is a result of the shift to a network-centric communication and media system.

In 2011 we saw social computing reach massive scale. Hundreds of millions of active users spent the majority of time on-line using social networks and social technologies enabled revolutions around the world. Search, which had displaced portals, was itself displaced as the primary entry point to the web. The mainstream services that drove this include Facebook, Twitter, LinkedIn, BlackBerry Messenger, and Tumblr, as well as more traditional SMS and email. We believed this would happen but the speed of the transition has taken even us by surprise.

Despite hypotheses to the contrary, I believe that multiple networks will continue to exist and thrive. Facebook has garnered huge traction and cultural significance but the switching costs associated with existing social services (identity, graph and data) are eroding as more networks become broadly adopted across the web. Users are developing different social graphs, in different contexts and users (individuals, developers, or companies) are demanding more diversity from social services than any one company can offer.

Important differences in product structure, utility and reason d'etre fuel their diversity. Key differentiators, with examples, include:
- Symmetry vs. asymmetry: Facebook has a predominately symmetrical follow graph (I follow you, you follow me) compared to Twitter and Tumblr where someone can be followed without following.
- Identity vs. anonymity: as Facebook and Twitter push to unveil true identities, new products are gaining traction in which people act anonymously or under pseudonyms.
- Directionality of services: Twitter is focused on driving discovery *outward* to web pages, with approximately 25% of tweets containing links pointing to other sites while Tumblr, by contrast, is focused on bringing media *into* Tumblr.
- General vs. purpose specific: products such as Foursquare (for location) and Findings (for reading) build rich, immersive interaction-specific networks with the ability to build new, more diverse, and frequently smaller networks than platforms such as Facebook and LinkedIn.
- Stream-based vs. set-based: the fluid metaphor of the stream has certainly become the form that users interact with social media, yet set based services (ie: Pinterest) open up a whole other dimension of discovery.
- Duration of connections: real-time mobile applications such as GroupMe create temporary but intense conversations based on proximity in which networks exist for the

duration of an event, such as a protest or concert.

New products with nuanced approaches and diverse use cases, such as TweetDeck, Path and Instagram, are being built to scale. Though some will thrive and some won't, the demand for diversity is clear.

The new real-time social Internet is co-dependent and interoperable; that being said, it is nonetheless a web of data that is connected across services with different standards, APIs and legal relationships. Growth is complicated and is happening fitfully. Despite complexities, the shift to a greater level of connection is not surprising. For the first time in history, all the media of the world — text, video, audio, 3D, HD, whatever — is being hosted on one platform, the Internet. This opens up a myriad of opportunities to mix and shuffle communications and media.

An important nuance in this new world is that, for the first time, the same platform is being utilized for both production and use. This is a subtle but important difference because it opens up a whole layer of data-driven interoperability between what I post on the web (production) and how I share it (use), as well as how it is re-shared and drives interest. We are constructing a dynamic network; companies that learn how to work in this new world have an evolutionary advantage over companies that do not.

4. Great design becomes even more vital as development and hosting get less expensive

The process of building software is getting cheaper and cheaper thereby enabling what we call micro-development. The production buzz words of our era — "betas," "agile development," and "pivots" — are all an outgrowth of micro-development, which makes it *less* expensive to build *more*. Not only is it less expensive to build products, it costs less to scale them. For example, Dropbox went from a Y-Combinator start-up to supporting tens of millions of users with terabytes of data on a few million dollars of invested capital. At betaworks, we have built products like bitly that have reached web scale (i.e., billions of user interactions per month) with even less capital. This is a remarkable change driven by cloud economics and by a culture of "do what you do best and outsource the rest." When it comes to growing companies, micro-development is reducing the resources needed such as people, data, capital, APIs, and time.

As the cost of building and operating software-based businesses decreases, increasing value will accrue to design. Why? Because at a fundamental level the new devices and services we are building are increasing the depth and breadth of the human/computing interface. Simply look at the the way children naturally interact with an iPad. The ease of entry that the device offers raises the bar, by orders of magnitude, for human-centric interfaces from a design perspective. We have so much to learn and unlearn as we rip computers off desktops and put them in our hands, on our bodies and into our everyday life experiences.

Furthermore, in a world of plentiful options for hardware and software, a product that is "just good enough" will not suffice. Technical barriers to entry are so low, and the number of providers are so high, that users expect more than just functionality — they are drawn to and demand excellent product design. In this multi-platform era, users are the ultimate arbiter of

quality. As users try and adopt new services, their expectations of design and overall quality are elevated, both in professional and personal use.

I don't restrict my definition of design to the visible user interface; I include the end-to-end design of products from the interface, to the database, to the API, and even how that product connects with other products. The social design decisions about how to enable graphs (e.g., the degree of anonymity, game mechanics, default settings around privacy, the symmetry/ asymmetry divide, etc.) are fundamental decisions that can determine whether or not a product works. Design drives the optimization of experiences for specific devices/mediums/interactions. Different types of media (web, app, SMS, email, PC, tablet, phone) demand targeted design experiences, not generic reprints. End-to-end, human centered, design is a discipline, a process, and a function that this new world demands.

A connected world …

A connected world is emerging which is radically different than the one first built by the pioneers of the personal computer and the Internet. With all communication on one platform, distinctions between communication modes will be driven by users and designers, not by technical constraints. Many people believe that long term impact will come from the changing economics of media delivery caused by a shift to the cloud. But I believe, taking it one step further, the opportunities that will arise from the shift to a single platform will have a more significant and longer term impact.

To dig deeper into some examples of what I'm outlining, turn to Howard Stern who, on New Years Eve, Tweeted and "drunk dialed" his listeners (http://bit.ly/AhU6aZ), taking them beyond passive listeners to make them participants in the media experience. Look at how Glenn Beck uses real-time tools like Chartbeat while on the air (photo: http://bit.ly/yNXjD7) to give him live feedback of who his audience is and what they are doing on-line. Stern and Beck are masters of modern media and they are breaking down the walls between performer and audience and between the media experience and the data behind it. Data used to be an after-the-fact tool to measure what happened but it is increasingly an environment in which media is created -- an environment in which we are living. "Data is the plastic of the 21st century," as Om Malik has stated. Tony Haile, the CEO of Chartbeat, gave a great talk this summer on how real-time data feedback loops change media and its production (see: http://hackthefactory.com).

In a connected world, the barrier between the devices and networks of peoples personal lives are their work/enterprise lives is coming down. Enterprise applications are being held to the design and utility standards found in end-user applications. Additionally, social data are driving big business decisions. There is a demand for enterprise products that work with, and are designed like, consumer-facing services and networks. Bitly, Chartbeat and SocialFlow capitalize on the intersection of enterprise and end-user services; they have the ease of use of end-user products and provide enterprises the insight into social networks needed to make real-time business decisions.

Now think about all media existing on one platform, the content and data that is being generated and harnessed through connected networks, the massive software disruption accelerated by a hardware and design revolution, the leap from request/response to eventful communications, and our ability to analyse and work with massive amounts of data, the new "social enterprise" — we have opportunities now that have never been possible. The data exhaust that we are building around and the collision of all this media is mind-boggling. We are witnessing a massive software disruption accelerated by a hardware transition. In the history of communications and media this has never happened before.

> "*Think about it, not too hard so as to dispel the illusion, but just enough to let it flower. We can: Create networks that span the Globe over free wifi. Stream music and pages up to the big screen as we exercise. Send live video around the world or privately for a small group. Drag and drop documents, songs, images, ideas, links, alerts, and conversation. Cuddle with our children across the oceans. Rally around an idea or elect a president or build a hospital or nurture our friends. Live some part of our dreams or invent new ones.*"   (Steve Gillmor, http://bit.ly/yQbiCe)

the year at betaworks

The flexibility built into betaworks allows us to focus on companies and products that are aligned with the real world evolution of the four key developments discussed above. We think about betaworks as a network; not only do our companies frequently work together but they are all building on and growing networks in some form or another as a core part of their value proposition. We strengthen edge connections through business partnerships, APIs, data deals, and conversations because that is what our network requires. We spent 36 months building three best-in-class companies that provide tools to understand social media — bitly, Chartbeat, and SocialFlow — because we know the importance of understanding data. Data is the new plastic. The network is both the frame and the metaphor we are building towards and on. This network-centric model is core to betaworks, and a key competitive advantage.

The studio companies: bitly, Chartbeat, and SocialFlow

As I mentioned in the December letter, the studio companies had an outstanding year. Bitly hired a super, seasoned CEO, Peter Stern, who immediately began the steps necessary to grow the company from a massively scaled web utility to a data-centric, revenue-generating business. By the end of the year, bitly supported 20,000 white label domains, and was processing more than 11 billion clicks a month, enabling sharing for over 1.2 billion monthly unique user cookies. Because of its scale and the diversity of its data sources (much of Twitter, a big piece in Facebook, all of Foursquare, and a very long tail) bitly is the only unbiased, independent, web-wide, cross-network dataset of social participation and intent.

Integrating its unique search engine based on billions of clicks, bitly launched a new social

media monitoring service (http://tcrn.ch/zn0aGI), as well as other B2B services, and is building out an enterprise sales team. Bitly closed a strategic partnership with VeriSign and wound down its formal relationship with Twitter as Twitter rolled out its t.co link wrapper. By the time t.co hit market, bitly had diversified its inbound link traffic so the impact on bitly's traffic was minimal; even after full t.co deployment bitly still powers 20% of all links on Twitter; system-wide, bitly clicks are up 50% in the past 8 months. Click traffic based on link-shortening has continued to grow faster than we expected, and bitly will be releasing a new consumer offering in the first quarter of this year.

In 2011, Chartbeat became the "go-to" service to measure and track who is on a site and what they're doing, all in real-time. Unlike previous generations of analytics services, which focused on research departments and strategists, Chartbeat targets front-line workers who have the ability to instantly adapt their site's content and performance. The power of putting real-time data into the hands of front-line workers is proven by Chartbeat's 340% revenue growth in 2011. As part of a new "vertical" strategy, Chartbeat launched a new service directly targeting publishers and content creators (http://newsbeat.com), and in approximately 100 days Newsbeat reached $1 million in annual recurring revenue. This year, the vertical strategy will be expanded to advertising, gaming, and shopping. In recognition of the excellent work he's done in building revenue and product momentum, Tony Haile was promoted to CEO.

SocialFlow brings big science (linguistic and algorithmic social media ROI analysis) and big data (the Twitter and bitly firehoses) to bear on the problems of real-time social marketing. The product offers users the ability to target their messages into Twitter and Facebook exactly when people are talking about the subject matter contained in the candidate message. SocialFlow is a "right time" platform. A premium product for brands and agencies is in development and should be ready around mid-year. The team completed a Series A round of funding in April, led by SoftBank, and launched a major redesign and upgrade of the product in the fall. Co-founder Frank Speiser stepped up to the CEO role, and the team grew remarkably, with current headcount at about 30. The team's focus now is on sales and marketing, which will be supported by some additional sales hires. Revenue continues to grow as the team closes deals with big brands and agencies, and they are readying a press push for their broad release of the self-service application. The science team can predict social media success to a very accurate degree and there will be some press on that in the coming months as it is made available through scheduled feature releases with their products. In the interim you can see their work and data in places like this Information's Social Highways http://bit.ly/A4zBue or on the SocialFlow data blog. SocialFlow will also be "leaving the nest" soon — having outgrown the betaworks office, the company will be moving to 140 East 45th Street shortly.

Team

As you may know, betaworks itself employs only 10 people — the vast majority of the 100+ people in our office work directly for our studio companies. In 2011 we had several changes to the team, the most notable of which took place in September when Andy Weissman moved to

Union Square Ventures. Andy made a great contribution to betaworks, but after four years he concluded that he really wanted to be a venture investor and it was time for him to follow that path. We made the necessary changes and the transition was smooth. Josh Auerbach, who has been with betaworks for more than 2 years (and with whom I've worked for 11 years) stepped up as CFO, and Sam Mandel came on board to run deals and M&A. Both Josh and I have worked with Sam for a long time, beginning at AOL and most recently through his role in charge of business and operations at TweetDeck (where he helped lead the sale to Twitter).

Betaworks and our in-house companies continue to attract some of the most talented people in our industry. In May, Summer Bedard joined our design team of Neil and Jason. We recently brought on Nick Chirls as an analyst to help Antonia Abraham and Josh on the finance and investment side. Last, we've just welcomed Lauren Piazza as our new office manager, replacing Nicole Frand who moved to a key role at TechStars. Jonathan Basker continues to lead and innovate as VP of People, helping in everything people related, from staffing to space. The betaworks team is more aligned and energized than ever before.

Seed investments and transactions

New seed investments completed by betaworks in 2011 were: Lulo Inc. (product: OnSwipe), Bloom Studio, Fivestar, Onegoodmovie, 2BKCO, Clipboard, Everlane, Veri, Punch Media, Just.me, Picturelife, Lascaux (product: Mixel), Learnbat (product: Show.me), Piictu, IFTTT, and 4 investments that are not yet announced. We did follow-on investments in the following companies, excluding follow-ons in the above-listed companies: Kickstarter, DailyBooth, ExFM, Embedly, Pingpin (product: Ditto), Superfeedr and Yieldbot.

In one form or another, all our investment companies are building out aspects of the networks we discussed in this letter.

We were involved in several transactions with our companies in 2011, most notably the sales of Twitterfeed to bitly in March, of TweetDeck to Twitter in May, and of GroupMe to Skype in September. Finally, we sold our shares of Groupon in the public market in November and in December we completed a private sale of the majority of our stake in Twitter.

betaworking in 2012

I love what we do at betaworks, this year more than ever. I get to work with amazingly talented people that never cease to impress me. This year we began to see tangible returns from our decision to invest in the real-time social web, a trend that we identified five years ago. We were one of the first in this space with the right thesis and a disruptive model. New York as a technology hub has taken on a life of its own and our studio provides us with a platform to make, build, invest, buy, and sell products and assets as the industry evolves around us. At each step betaworks becomes more central to the New York tech community; it is no coincidence that we are based in one of the most vibrant and creative cities in the world.

Since we began this journey we have produced eight companies; among those, 3 have become category leading social tools, 3 were acquired, and 2 are just taking off. We raised $26 million from terrific investors. Our exits last year gave us the capital to return all invested capital, and then some, and still retain capital on the balance sheet. Two weeks ago we closed a note that permitted investors to put returned capital back into betaworks. And it is still early days. We enter this new year with a model that works, a seasoned team who know how to scale businesses, and more cash on the balance sheet than ever before. We have reached the point where betaworks can operate as an evergreen vehicle — a true company, not a fund. Any future capital raises will be based on strategic opportunity and geared towards scaling the value of the betaworks platform.

In 2012, we look forward to building and investing in companies around the themes outlined above. We will continue to work with the most talented people and most promising ideas. We will start companies in-house and continue to invest in seed-stage companies; to accelerate the pace of development and the diversification of the stage of the companies we work with in-house, we plan to acquire additional assets that will become part of the owned and operated core of companies at betaworks. To that end, we are in discussions about some exciting opportunities, and in December we closed a small transaction to acquire majority ownership in a new social platform. We are not ready to talk about it yet but it suffices to say we are smitten.

And as ever we will continue to approach everything with a singular focus: the social Internet. We are makers; we create companies, scale germs of ideas and craft the future of the social web one good idea at a time. We want to make stuff that matters.

More discussion of the themes discussed in this letter will take place this Spring at betaday, our annual forum. The goal of betaday has always been, and will continue to be, to bring companies, investors, big thinkers, doers, builders and players together to exchange ideas. We encourage the exchange of information and foster the development of higher level ideas and trends. We look forward to continuing the conversation of this letter, and seeing you at betaday. Finally we will do a shareholder Q1 call in March, with details to come closer to the date.

On behalf of the entire team at betaworks, we appreciate your ongoing support.

/ JB

J.B.