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# A Rift in the Ground: Theorizing the Evolution of **Anchor Values in Crowdfunding Communities** through the Oculus Rift Case Study

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#### **Abstract:**

Recently, many people have discussed crowdfunding's role in developing new products and new businesses. However, crowdfunding is driven not only by economics but also by a set of shared values; values that unite communities of funders and anchor them to specific projects. We theorize how these anchor values evolve by analyzing one extreme case, specifically the Oculus Rift virtual reality headset developer kits. The Oculus Rift had significant success on Kickstarter fundraising and generating interest in virtual reality. However, they also caused controversy when the company was subsequently sold to Facebook for US\$2 billion, a move that some argued contradicted the principles of crowdfunding. We perform a grounded theory analysis of public discourse from mid-2012 to mid-2014. That analysis suggests the Kickstarter community's response to events around the Oculus Rift was ultimately self-preservational in nature whereby that community adapted their perceived values around the Oculus Rift to maintain a distinctive and sustainable collective identity. Finally, we relate these findings to existing research on organizational identity and stakeholder engagement.

Keywords: Crowdfunding, Kickstarter, Anchor Values, Grounded Theory, Oculus Rift.

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### 1 Introduction

Until now I have used the Rift as a defense against any criticism of Kickstarter. Now I just feel embarrassed. (Comment left in response to Oculus VR's announcement on Kickstarter of their acquisition by Facebook, 26/03/2014)

Crowdfunding has emerged rapidly in recent years as part of the broader paradigm of crowdsourcing (see Howe, 2008). Crowdsourcing describes a wide range of behaviors in which individuals and organizations seek to obtain value from online communities, which includes the community production of software and knowledge goods (e.g., LibreOffice), open innovation and design contests (e.g., InnoCentive), and crowdbased microwork (e.g., Mechanical Turk). What makes crowdfunding different from these other forms of crowdsourcing is that crowdfunding communities provide the actual capital investment for specific projects and outcomes and not simply knowledge or skills. As such, with crowdfunding, individuals and organizations have the means to bypass conventional financial intermediaries, such as banks, fund managers, and venture capitalists (Kupp & Anderson, 2007; Pope & Sydnor, 2011; Wang & Greiner, 2011). In some cases, the returns for backers are economic in nature (Gleasure and Feller, 2016); however, many crowdfunding communities are anchored together by a broader set of espoused social or ideological values (Burtch, Ghose, & Wattal, 2013; Kuppuswamy & Bayus, 2013; Mollick, 2014).

Understanding how these anchor values can bind together specific projects and funder communities is crucial if both funders and fund seekers are to benefit from crowdfunding relationships. However, significant theoretical gaps exist surrounding how and why communities form such anchor values and the manner in which they evolve, which is particularly true for rewards-based crowdfunding, which has captured the public's attention thanks to several high-profile successful campaigns on Kickstarter, including the Pebble smart watch and the Veronica Mars movie project. Fueled by such success stories, Kickstarter has generated over US\$2 billion in funding from 12 million backers for over 112,000 successful crowdfunding campaigns since it began in 2009 (Kickstarter, 2016). Yet, events surrounding one particular success story, the Oculus Rift virtual reality developer kits, demonstrate just how little we understand about anchor values on a platform such as Kickstarter. When Facebook acquired Oculus VR (the company behind the Oculus Rift) in 2014, many backers voiced expressions of betrayal and outright hostility towards Oculus VR. Many crowdfunding practitioners predicted this reaction, yet such predictions have little grounding in existing theoretical models of crowdfunding. After all, backers received their rewards and the company responsible arguably gained a better position to advance the virtual reality (VR) space after Facebook acquired it.

Research on Kickstarter has illustrated the importance of dialogue between fundraisers and backers for predicting project's popularity and eventual fundraising (Beaulieu & Sarker, 2013). This finding suggests that interactions play an important role in building the anchor values that bind projects to groups of backers. Further, research has suggested fundseekers with a history of backing other campaigns have higher success rates, suggesting reciprocity-based values may also play a part (Zvilichovsky, Inbar, & Barzilay, 2013). Some research has even argued that contribution patterns in Kickstarter manifest indications of ideology-based rather than utility-based funding, such as "crowding out" effects where investors become less inclined to support projects that have already reached important milestones (Burtch et al., 2013; Kuppuswamy & Bayus, 2013). Such a situation suggests the anchor values binding backers to specific projects may include ideological or social concerns. Yet, to our knowledge, no research currently exists that theorizes the process or criteria by which crowdfunding communities form these anchor values nor how they evolve over time.

In this study, we use grounded theory to study Oculus VR's changing relationship with their backers on Kickstarter from August 2012 to April 2014. We analyze how a group of backers on Kickstarter initially embraced the Oculus Rift project, how the relationship between these backers and the Oculus Rift changed over time, and finally how and why these backers responded on hearing news of the sale of Oculus VR to Facebook. In Section 2, we describe the specific grounded theory methodology employed. In Section 3, we present our findings as an emerging substantive theory. In Section 4, we present a formal theory that relates findings back to existing research on stakeholder theory and organizational identity. We also conclude by discussing the study's implications for both research and practice.

## 2 Research Methodology

Kickstarter remains a relatively young platform. As such, like many electronically mediated social contexts, it is likely to demonstrate novel and rapidly changing behaviors (Vaast & Walsham, 2013). We cannot use

deductive approaches to study such contexts because we lack a reliable body of existing theory to inform extensive a priori theorizing (Lee, 1989; Myers, 1997; Venkatesh, Brown, & Bala, 2013). Thus, we adopt a grounded theory approach in line with Corbin and Strauss (1990, 2008) and analyze data gathered from a single "extreme" case (c.f. Yin, 2009).

Grounded theory traces its origins back to Glaser and Strauss (1967), who sought to develop a highly inductive approach to building theory. This approach advocates using data to develop theory in an open-minded manner that is sensitive to the nuances of context (Dey, 1999; Urquhart, 2001; Charmaz, 2006). One can characterize grounded theory along six key dimensions (c.f. Birks, Fernandez, Levina, & Nasirin, 2013): 1) a focus on theory development for describing and analyzing the phenomena of interest, 2) the constant comparison of data against different standpoints represented by continuously evolving analytical and theoretical "memos", 3) the iterative coding of data across multiple passes as emerging theory becomes more sophisticated, 4) the theoretical sampling of data along emerging differentiating dimensions, 5) the management of preconceptions that avoids relying on any specific theory as a starting point, and 6) an inextricable link between data collection and analysis that incorporates further sampling as part of ongoing analysis and theorizing.

While these characteristics are intended to transcend divisions in discussions about grounded theory as a methodology, grounded theory nonetheless represents a contested space (Urquhart & Fernández, 2013). The central issue concerns differences in the Glaserian perspective, which assumes a less structured approach, and the Straussian perspective, which is more prescriptive (c.f. Jones & Alony, 2011). We adopt a post-positivist position that, like the Straussian perspective, assumes knowledge creation is fundamentally subjective even if a single reality exists outside of our subjective experience (Guba and Lincoln, 1994; Mingers, 2004; Lincoln et al., 2011). However, the assumed existence of that single reality lends itself to subsequent reductive Glaserian formalization of our substantive theory (Glaser, 1999; Glaser and Holton, 2007).

### 2.1 The Case of the Oculus Rift Developer Kits on Kickstarter

In this paper, we describe the events leading up to and immediately following Facebook's acquiring Oculus VR. Palmer Luckey founded Oculus VR and launched a Kickstarter campaign on 1 August 2012 to fund the creation of the Oculus Rift developer kit, a head-mounted virtual reality headset intended for the gaming market. Luckey set an initial goal of US\$250,000 for the project, but it raised over US\$2.4 million in funding from backers on Kickstarter. Just over 18 months later in March 2014, Facebook bought Oculus VR for an estimated US\$2 billion dollars (King, 2014). The nature of this acquisition challenged the ideological dimension of crowdfunding and frustrated a large number of Oculus Rift backers. Many of these backers had expressed some collective sense of ownership and achievement associated with the project. Facebook's buying Oculus VR undermined that narrative, which led many to believe that the sale compromised their core values. Such theoretical richness in a case presents a significant opportunity to develop new theory (Eisenhardt, 1989; Cavaye, 1996; Eisenhardt & Graebner, 2007). Thus, we explore the Oculus Rift crowdfunding campaign to observe the evolution of anchor values in a crowdfunding community and how and why those evolutions occur. Note that observations focus specifically on the group of backers who invested in the Oculus Rift: we do not generalize our findings to the Kickstarter population as a whole (the bounding of which presents challenges outside our scope).

### 2.2 Data Gathering

While we did not focus on any specific theory for our investigation, we also did not expect initial theorizing to represent a "blank slate" (Charmaz, 2006; Urquhart & Fernández, 2013). For the study, we assumed that backers perceptions of the Oculus Rift would differ before and after Facebook acquired it. With this assumption in mind, we adopted a longitudinal approach to theorizing that required we observe a "history of values" (Weber, 2012) from 1 August 2012 and 16 April 2014. Such a dynamic event-based view is consistent with other grounded theory studies of electronically mediated social contexts (e.g., O'Mahony & Ferraro, 2007).

Primary data sources came from the Kickstarter website. These sources included the main fundraising webpage that launched the campaign, backers' comments on the campaign (n = 2,202), a series of webpages for individual updates by Oculus VR (n = 53), backers' responses to these updates (n = 1,156), the public profile for Oculus VR, and public profiles for each of the Kickstarter members who funded the campaign (n = 9,522).

Triangulation is important for grounded theory studies of online behaviors to corroborate working propositions and relations (c.f. Vaast & Walsham, 2013). Hence, we theoretically sampled secondary sources from a range of other online communities, including social media sites, news outlets, and several gaming or VR-specific forums. Note that, because we focused on exploring the evolution of anchor values,

primary and secondary data gathering focused on online discussion between participants rather than non-externalized perceptions or concerns. Such non-externalized perceptions or concerns may have played an important generative role for different actors' personal motivations for participating in the project. However, such perceptions were outside our scope; instead, we focused on theorizing about the manner in which espoused values bind specific individuals, communities, and projects. Indeed, we could have misled rather than informed theory development if we included those non-externalized perceptions or concerns.

We complemented our primary sources with "theoretical slices" of data from secondary sources to support different perspectives and develop more rounded conceptualizations of phenomena (Glaser & Strauss, 1967; Urquhart, Lehmann, & Myers, 2010; Urquhart & Fernández, 2013). When these slices include different sites, they allow similarities and contrasts to emerge (Dey, 1999; Vaast & Walsham, 2013). Thus, in our analysis, we targeted related discussions on external sources for which links appeared on Oculus Rift's Kickstarter webpages. These sources included the Oculus Rift website, the section of the MTBS3D (an abbreviation of "meant to be seen in 3D") forums dedicated to advancing virtual reality technologies, various news articles, and multi-purpose social media sites such as Reddit, Facebook, and YouTube. This continuous process of theoretical sampling and reflection demonstrated the inextricable link between collecting and analyzing data in this study.

### 2.3 Data Analysis

We gathered data for each of the three distinct stages and coded it using the techniques that Corbin and Strauss (1990, 2008) propose; namely, open, axial, and selective coding. Further, to ensure we produced a compositionally valid theory, we directed our coding toward identifying the key parts of a theory that Weber (2012) identifies; that is, different types of ontological constructs (things, composite things, properties, classes, attributes, states, lawful states, events, lawful events, history of a thing, and interaction between things) and the associations between them.

First, open coding requires one to exhaustively analyze the data "line-by-line" (Glaser & Strauss, 1967; Bowen, 2006; Charmaz, 2006). Thus, we exhaustively analyzed the dialogue on Oculus Rift's Kickstarter webpages, which included the campaign description, backers' comments, updates by Oculus VR, and backers' responses to those updates. In that examination, we focused on all discussion relating to *anchor values* by various individuals involved (i.e. different backers, Palmer Luckey, and other Oculus VR representatives). We developed open codes for each stage as part of our efforts to constantly compare data against different standpoints as recurring themes emerged in the data.

As a result, we identified four "things": 1) the Oculus Rift developer kits, 2) Oculus VR staff members (including Palmer Luckey), 3) individual backers, and 4) individual backers who were members of the MTBS3D forum (the forum in which Palmer Luckey acted as a moderator and had first discussed the Oculus Rift). Further, we identified three "composite things": 1) Oculus VR—the company formed to launch the Oculus Rift, 2) the collective group of backers who supported the project on Kickstarter, and 3) the MTBS3D forum. We identified anchor values as the key property, which had four possible attributes: 1) *VR development*, 2) *independent ideology*, 3) *community*, and 4) *corporate*. After analyzing the data early on, we also found three key "events" that impacted the evolution of anchor values around the Oculus Rift fundraising campaign: 1) initial contact during the fundraising campaign, 2) completion of fundraising (including the period in which the project delivered rewards to backers), and 3) Facebook's acquisition of Oculus VR.

We performed axial coding to refine these constructs and identify associations between them. We noted observations in the form of theoretical memos evolving continuously during data collection and analysis. With these theoretical memos in place, we employed iterative coding as part of multiple revisits to the data to compare alternative interpretations. With this process, we could assign composite things to the class "group" and the atomic things to the class "individual" with the exception of the Oculus Rift Developer Kit headset, which we assigned the class "object". These classes shared the ability to possess anchor values; however, they differed according to their ability to espouse these values themselves. Further, we observed each thing or composite thing to have specific "states" that one could characterize according to their values (e.g., a group might have a set of anchor values = {VR development, independent ideology}). We also observed an "unlawful state" as {independent ideology, corporate, ...} due to their conflicting nature.

With these codes in place, we laid out the "history" of each thing and composite thing according to the three key events. As such, we could explore the "interaction between things", particularly where we observed new anchor values for a group or object after some event. Finally, in our selective coding, we looked for specific

instances of dialogue that supported or undermined the hypothesized constructs and associations captured by the emerging theory.

### 3 Findings and Development of Substantive Theory

The theorizing process in grounded theory research typically involves developing both "substantive" theory and "formal" theory (Glaser & Strauss, 1967; Urquhart et al., 2010). According to this distinction, substantive theories provide an abstract account of the behavior that the data describes and the factors that influence it. A formal theory builds on this account by comparing the substantive theory with other theories and, thus, expands the scale and scope of the analysis and allows more abstract and generalizable relationships to emerge between conceptual entities. This section focuses on developing a substantive theory of events surrounding the Oculus Rift Kickstarter campaign.

### 3.1 Anchor Values during the Oculus Rift Campaign

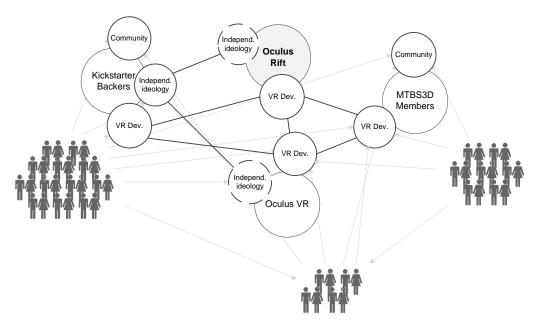


Figure 1. Espousal of Anchor Values During the Kickstarter Fundraising Campaign

Predictably, given the campaign's early success, the tone of discussion at this stage was encouraging, exciting, and congratulatory. Most backers funded the project at levels that provided them with developer kits; however, 27 percent of the backers (n = 2,565) provided lower levels of funding, almost half of whom (n = 1,009) funded the project in return for only a symbolic "special thanks". Dialogue was particularly intense around the launch of the campaign, but faded slightly thereafter albeit with some increase as the campaign reached its conclusion (see Figure 2). Key anchor values identified at this stage were *VR development, independent ideology*, and *community*. Axial coding noted several further trends based on analyzing dialogue according to the six headings that Strauss and Corbin (1998) propose: phenomenon, context, causal conditions, intervening conditions, action strategies, and consequences.

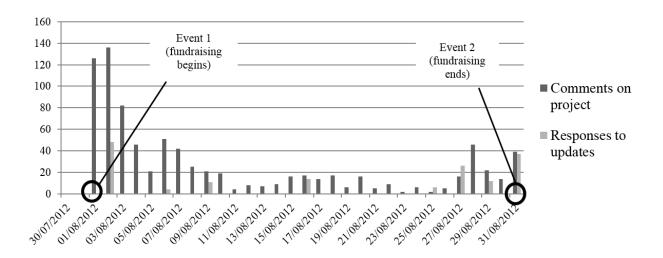


Figure 2. Intensity of Dialogue During the Kickstarter Fundraising Campaign

At the "phenomenon" level, it became clear early in the coding process that anchor values had a role in binding together the object (the Oculus Rift) and various groups involved. Building on this, analysis of the "causal conditions" showed that individual backers began espousing anchor values relating to *VR* development on behalf of the broader group of backers almost immediately. For example 1:

I'll continue the trend of asking for more technical specifications. We're mostly early adopters and developers, we want numbers to drool over

i love your project and it's something i always dreamed of.. of course why else would i be here, didn't we all?!

In contrast, some backers espoused these anchor values only on behalf of themselves:

I've been playing off and on (more off than on - heh) with homebrew VR since the early 1990's

I am incredibly exited for this whole VR thing and I can't wait till it hits the market

Espousing these *anchor values* acted to bond this group of backers to Oculus VR and the Oculus Rift. This process was furthered by an increasingly technical dialogue that suggested their collective interest in *VR development* was not new

I own an Asus Wicast EW2000 wireless HDMI transmitter and it has a latency < 1ms. Palmer owns the Wicast too and he used it to make a wireless prototype of the Rift (check the PR3 topic on mtbs3d forums)

You can expect the resolution to look slightly lower than the original VFX1. If future versions have a 1920 panel you'll have 5.6 arc min. if 90 deg HFOV (960 per eye). To have a retina limited HMD you need about a 5k panel over one eye at 90 deg HFOV->1.08 arc min.

Individuals also espoused anchor values relating to *community* for both the group of backers and the MTBS3d forum. MTBS3D members celebrated these values as an early enabler of the Oculus Rift project:

Congrats Palmer! I reading your stuff of mtbs forum before this all blew up.

Well as MTBS3D is where Palmer first started the project and also where alot of interested people are it's a good start.

Keep an eye out on the MTBS3D forums (which is the very forum Palmer uses as well) for news regarding this and other subjects.

For the broader group of backers, these *community* values reflected a general sense that the Oculus Rift had the potential to become a shared source of validation:

<sup>&</sup>lt;sup>1</sup> Note that we produce the quotes without alteration. As such, many contain grammatical and orthographical errors.

I am so excited to be part of this, after trying so many different VR solutions over the last 20 years

VR is only in its infancy for the mass market. Just be glad to be part of it (and for such a low price), you'll have a front row seat from the start

Oculus VR staff echoed these *community* anchor values by frequently commenting on the esteem in which they held the group of backers:

We're hoping the community helps us change that, which is why the Kickstarter is so important! We hope you'll show your support.

It feels like just yesterday that we were talking about how cool a Kickstarter campaign could be. You guys are awesome!

Oculus VR staff also reflected *community* anchor values through their attention and responsiveness to individual queries, which decreased the social distance between Oculus VR staff and the backer group. One individual commented on this responsiveness during an "ask me almost anything" or "AMAA" session on Reddit to which Palmer Luckey replied: "Thanks! Tough work, but everyone who takes the time to write a question should get an answer".

Perhaps most interesting were the anchor values that Kickstarter backers espoused around a shared *independent ideology*. Backers implicitly but frequently espoused these values on behalf of the larger Kickstarter population (e.g., "this is what Kickstarter is all about" and "this is really changing times at industry scale. Hardly can't remember so expectative & passion all around since good Amiga times"). Further, although we could find no evidence of Oculus VR's espousing anchor values pertaining to an *independent ideology*, backers nonetheless espoused these values on their behalf:

I do know the devs and indies are already dreaming up and testing possible demos and whatnot to try out the Rift. And the more geeks getting their hands on this with full knowledge of what it is and what the drawbacks are; the better imho.

CONGRATS Palmer!!! Supporting you and this project is so incredibly important to a larger fundamental shift in how we interact with our technology. I've followed your work for a long time and I'm extremely excited to see the corporate big-wigs fall behind you!

These externally espoused values appeared to draw from the case's "context". The closest thing that we could find to Oculus VR's explicitly espousing these views was a single comment by Palmer Luckey on the sixteenth page of a thread on the MTBS3D forum on 6 July 2012, which stated that "Oculus is going forward in a big way, but a way that still lets me focus on the community first, and not sell out to a large company". This comment predates the Kickstarter campaign and appears to refer to immediate developments rather than prohibiting any medium to long-term acquisition. Further, backers on Kickstarter never referenced this particular comment even after the negative reaction to the acquisition, which suggests few backers knew about it. Yet, it appears to have contributed by feeding into prevailing perceptions of Palmer Luckey and his MTBS3D identity, the nature of which suggested a history of passionate amateurism rather than business ambition. Thus, the object in this case (the Oculus Rift) appropriated anchor values from the fund-seeking group (Oculus VR and particularly Palmer Luckey) purely by association.

Backers increasingly attributed these anchor values to the Oculus Rift under "intervening conditions" of uncertainty; an uncertainty created by Oculus VR's failure to explicitly discuss their *independent ideology* (or lack thereof). Therefore, as part of their "action strategies", Palmer Luckey and other Oculus VR personnel had to decide whether to address the ambiguity or to allow the projected values to persist. They chose to allow them to persist and, in some instances, arguably encouraged them. For example, Oculus VR ran a "Gift a Rift" contest during the fundraising period, the only condition for eligibility being that contestants were "an independent studio without a deal with a major publisher". As a "consequence" of these behaviors in light of the ambiguity, Oculus VR (and, therefore, the Oculus Rift) appropriated these *independent ideology* anchor values, which further bonded them to the backer group from whom they sought investment.

### 3.2 Anchor Values after the Oculus Rift Campaign

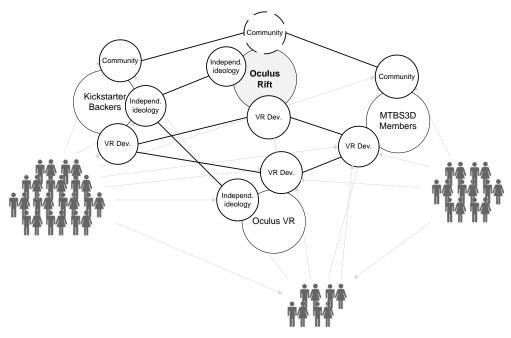


Figure 3. Espousal of Anchor Values After the Kickstarter Fundraising Campaign

Analyzing dialogue after the Oculus Rift successfully acquired funding revealed two key trends. The first trend was a decreasing intensity of dialogue (see Figure 4) in which anchor values appeared less open to negotiation and more broadly embedded. The rate of interaction between Kickstarter backers and Oculus VR slowed after the fundraising campaign finished and then remained consistent up until the Oculus Rift developer kits were shipped in May 2013. The frequency of comments during this period spikes around the original shipping date for backers' Oculus Rift developer kits (i.e., December 2012). Oculus VR added an update on 28 November 2012 entitled "Update on Oculus Technology, Shipping Details". This update, which received 88 responses and 98 comments over the following five days, presented a revised shipping date of March 2013, blaming the delay on unforeseen technical challenges and the higher-than-expected scale of demand from Kickstarter backers.

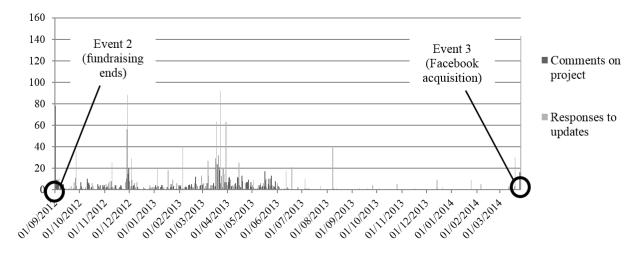


Figure 4. Intensity of Dialogue After the Kickstarter Fundraising Campaign

The second trend was the emergence of anchor values relating to *community* around the Oculus Rift as an object, which further acted to bond the group of backers to the MTBS3D forum. This bonding created tension around the proportion of dialogue between backers and Oculus VR taking place on Kickstarter and the MTBS3D forum. For example, one vocal backer (0 other projects backed, 31 previous comments)

challenged the overlap between Kickstarter and MTBS3D users by arguing the latter group received more up-to-date information:

Anyone find it a bit unprofressional and irritating how they give out more information about the status of the Oculus Rift on www.MTBS3D.com instead of their actual kickstarter website (or company website for that matter) where people actually paid money for the product, and are seeking information and left in the dark.

This same user subsequently requested a refund:

... delays are okay, but it is ridiculous what they did in not telling us. With all the talent they have, not one of them understood the timeframes for manufacturing a product? They must have known it was impossible to deliver by December months ago. How do we get a refund?

Even though these complaints in essence were reasonable, several backers intervened to defend Oculus VR. Comments to the dissenting backer either reassured them by alluding to the strong link between the group of backers and the MTBS3D forum:

That's simply not true. I lurk that forum every day and there absolutely no "special treatment" or extra information released.

You can totally peruse mtbs3d as well if you're afraid of missing out on things, but I'm pretty sure once they have real news to drop, it will be here.

I have been a long time member at mtbs3d and can say for sure. Even though Palmer pops in from time to time, since the start of the kickstarted he has not released any offical update there, that he has not released here.

Or distanced them from the broader group:

Read kickstarter FAQ... No refunds! But thanks for supporting the project! :)

Stop using "OUR" and "We" and "They". You are not the Martin Luther King here, so stop represent me [sic]. If you want talk to someone, use his/her ID

Yet another person that doesn't understand What this is

Despite this tension, the increased bonding between groups also created a defensive barrier on Kickstarter to criticism at a project-level, which we observed when a separate backer was more aggressively critical and argued that:

I bought 5 rifts because i wanted toys, and i wanted them fast. The value of my toys has dropped significant if i have to wait several more months.

It says 'EARLY RIFT DEVELOPER KIT' and not 'first batch off the conveyor'. In my opinion i am no longer getting the product described in the pledge.

So i get nothing early, i just lent you money to get your business going. This is unacceptable.

Thanks Oculus for making me feel that private funding feels like a scam.

... you suck.

Other backers addressed this critical individual according to a previous screen name and with familiarity. The profile data for the critical individual has since been deleted, but discussion on the MTBS3D forum suggests this individual was an established Kickstarter user. MTBS3D users did not appear to take that individual seriously (e.g., "His comments are rather good for a laugh" and used his username as a synonym for acting childishly "I am glad that some well known developers and studios are getting their Rifts early. Hopefully no one outside of this board pulls a [username here] because of that".) However, the comments from backers on the Oculus Rift Kickstarter webpage were less forgiving:

... its not supposed to be e-bay for future products.

It just seems like little kids throwing a tantrum because it rained and they can't go to the beach TODAY. Sometimes it rains guys.

People if you just wanna get a new tech stuff rather than supporting a project and give encouragement to the creator, you should quit kickstarter.

As you may have noticed doing your calculations, Oculus has almost none (if any!) profit margin... I don't really understand were all your rage is coming from. And telling someone that he sucks is not nice at all. You should be ashamed of yourself.

I'm embarrassed to share the same first name as you.

Interestingly, this push to dissociate critical backers from the group was less evident on the MTBS3D forum, where users were less inclined to show solidarity with the larger population of backers on Kickstarter.

I guess all the.... people on Kickstarter won't be complaining about informing the people on this board before they were informed this time

Yeah, yeah. Why do you think I haven't been posting as much?

Bah...the Kickstarter forums are weak. I noticed that [username\_1] just posted his comments on the tracker update. Need I say more? Maybe [username\_1] and [username\_2] can join forces to make the least insightful forum on the web

Palmer Luckey's reply to the latter comment "At least [username\_2] is entertaining!" drew some complaints from the named individual, a reasonably active member on Kickstarter (one previous project backed, 15 previous comments). However, other backers again dismissed these complaints:

What exactly is your issue? What do you want? No where in this kickstarter did it say Palmer has to like you, be nice to you, or care about your feelings.

... sorry but i cant see were Palmer insulted you, he answered your question about the tracker. What were you expecting?

it seems you have maybe too much time on your hands. Instead of attacking a company, or founders of a company, maybe you can try to create your own company, and see what sort of issues you run into. It's not as easy as you think... And maybe even close your silly site.

Get lost. You know what you were getting into when you backed this.

The next major spike in backers' comments and responses surrounded the eventual shipping of the Oculus Rift developer kits in late March 2013. Oculus VR continuously added updates from January to April 2013 (in total, they added 14 updates during this period, and the longest duration between updates was 23 days). Backers also increasingly relied on the MTBS3D forums for information. Discussion on Kickstarter included twice as many hyperlinks to the MTBS3D forum in comments during March 2013 (n = 10) when compared with November 2012 (n = 5). Contrastingly, links to other online communities decreased during this period. During the period from August 2012 up to the moment Facebook announced it had acquired Oculus VR in March 2014, there were only three links to Twitter, one to Google+, one to Reddit, and none to Facebook. Links to other sites remained popular, including 23 links to YouTube videos and close to 100 links to other material, such as media coverage and the Oculus VR website.

Most of the comments and responses during this period reflected a building sense of excitement and anticipation, although some frustration and impatience was also apparent:

... you promised more updates to follow "soon" two weeks ago - please do keep us in the loop, guys, that's what Kickstarter is supposed to be all about!

All we're asking for is a little more communication with the developers that are anxiously awaiting an update; even just a short statement along the lines of "we can't say with certainty what the current schedule will be. Please bear with us and we'll have a definitive answer within the next two weeks" would be fine, as long as they give us something at all instead of just silence from their side.

Oh well, I'm going to stop looking at the forums and checking and rechecking my email accounts right now... I hate you, Oculus VR ppl... Though not so much like I love you.

Oculus VR continued to add updates after the kits were shipped (14 updates from July 2013 to mid-March 2014). However, the number of responses to these updates was fewer (N = 120, M = 8.57) than the previous 28 previous updates that occurred post-fundraising/pre-shipping (N = 723, M = 25.82) as was the total number of comments (N = 20). These figures signify an end to value negotiation among the group of backers as the espoused anchor values embedded between groups became more symmetrical and settled.

### 3.3 Anchor Values after Facebook Acquired Oculus VR

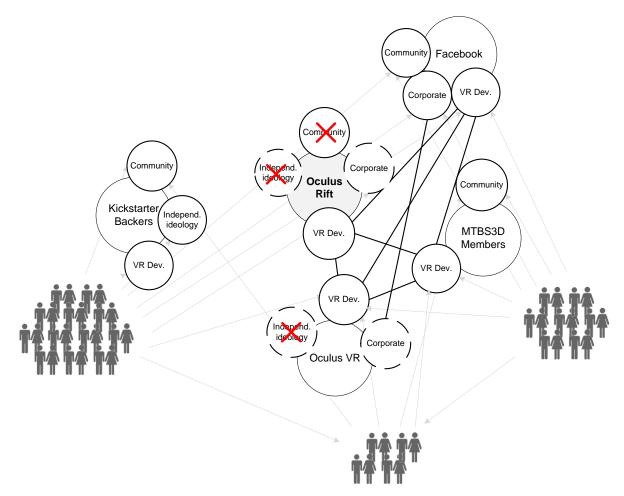


Figure 5. Espousal of Anchor Values After Facebook's Acquisition of Oculus VR

The first mentions of Facebook's acquiring Oculus VR came in a comment on 25 March 2014 that linked to an announcement hours earlier on the Oculus VR website. This comment led to another 16 comments on that day and a further 107 comments before the end of the month. Oculus VR added an update describing the acquisition on 26 March, which received 143 responses, along with another update on 28 March that announced that several new staff members had joined Oculus VR, which received 20 responses. These spikes in the frequency of comments and responses contrasted with the seeming loss of interest in the updates preceding them, which suggests some breach of equilibrium had occurred and backers were renegotiating anchor values around the Oculus Rift (see Figure 6).

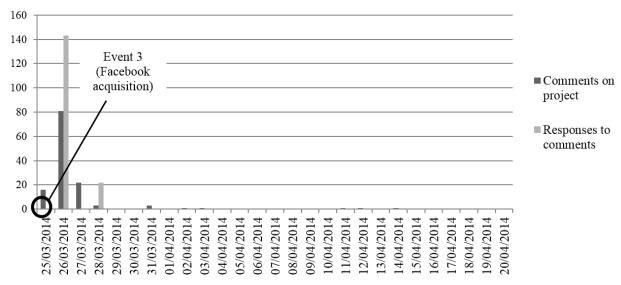


Figure 6. Intensity of Dialogue After Facebook Acquired Oculus VR

Open coding after this event suggested that Facebook represented a new relevant group. As with existing groups, individual backers espoused values for this new group around *VR development*:

From what I've read, Mark and the guys at Facebook stated that they will let the guys at Oculus to continue to work freely by their own standards.

Facebook doesn't want to be caught out when a new platform explodes onto the scene, as it almost was with mobile and it doesn't want to let competitors own the VR space.

... one has to ask oneself, does Facebook want Oculus so that it can be a part of improving the VR experience, or does it simply see Oculus as a wearable information gathering device?

Oculus users can become the first guinea pigs to share everything they do in their virtual worlds with the Facebook database.

Intuitively, given that Facebook represents a social media platform, individual backers also espoused anchor values for this new group around *community*:

Facebook...connecting your grandmother with your virtual girlfriends and putting the like button in every virtual planet that will exist on the future.

Facebook...genuinely imagines a future where shared social spaces might become the next big thing.

They also espoused a new attribute for the anchor values property (i.e., corporate values):

I think Facebook the company is kind of trying to become like Oracle. A company built on acquisitions.

With facebook, its only about money. Now we are not the customer, we are the product.

Facebook is a huge company that does something very boring, very clever and slightly evil.

Further, consistent with our earlier axial coding of "causal conditions" that suggested the Oculus Rift inherited values from its owners, backers now espoused these *corporate* values on behalf of Oculus VR and the Oculus Rift:

your idea and project together with the potential has been eaten, like food, by greed.

what was once an indie dream...is now a soulless corporate cash cow.

Now you're just a corporate asset that's going to put out products I cannot trust.

the independent dream that was Oculus is now selling out to Facebook.

Individual backers' espousing *corporate* values on behalf of Oculus VR and the Oculus Rift appears to have created what Weber (2012) terms an "unlawful state" due to their perceived inability to co-exist with values relating to an *independent ideology*. As a result, backers no longer espoused the latter values on behalf of Oculus VR. For the first subgroup of backers, the removal of anchor values relating to an *independent ideology* resolved the conflict with little or no obvious discomfort. These backers saw this removal of shared anchor values as the conclusion of the relationship: they congratulated Oculus VR and wished the company well in the future:

I'm more than satisfied with my pledge, actually this has been the best KS campaign that I've pledged to. They didn't only deliver the rewards, they also have been keeping us updated, even if the Kickstarter campaign ended over one and a half years ago!

Congratulations guys! What a spectacular way to carry your vision further. It makes a lot of sense, please show the critics wrong. You rock!

What an amazing opportunity for you guys. Congratulations! I can't wait to see where this takes you!

Other backers in the first subgroup voiced some disappointment but that they understood the financial realities of the business world. These individuals took comfort in the greater resources now available to Oculus VR and expressed hope that virtual reality technologies would benefit as a result:

Hey, congratulations on the deal. I always hoped that this project would someday succeed in a gigantic way. I kind of imagined that if and when the Rift made it big you might take us along for the ride... I guess I was being naive, but best of luck anyway.

Let's face it, the whole point of kickstarter is exactly what's happened: It's helped you fly, with no strings attached, to attract rich venture capitalists, and that's realy cool. I was in there early. Clearly this invention had to happen, and I'm glad for you all.

These backers appeared to resign themselves to the idea that the campaign's social element was less important than the artefactual output. Thus, they not only disassociated *independent ideology* anchor values from Oculus VR and the Oculus Rift, they also disassociated *community* anchor values from them. Palmer Luckey added fuel to this separation in an interview for Reviewed.com in which he remarked that "People who are actually spending their lives working on virtual reality hardware and software are all thrilled about this deal. It's easy to be an armchair critic when the only thing you lose out on is indie credibility". With no anchor values linking the project and the group, they were subsequently free to coexist independently.

The second subgroup of backers reacted more negatively. They expressed disappointment and, in some circumstances, outrage at the betrayal of the anchor values linking participating groups. These backers had more difficulty distancing the Oculus Rift from values relating to *community*. Thus, they perceived that Facebook had encroached into the Kickstarter value network:

Shame on you Palmer, shame on you. A terrible move indeed, I'm so upset at the idea that this great community of generous people kickstarted Facebook

Please no. We do not like nor trust Facebook... I do not want to be associated with Facebook at all.

Supporting these views, many backers moved to distance themselves further from the Oculus Rift by embracing its main competitor, the Sony Morpheus:

I hate Facebook. Now that Oculus is controlled by Facebook, I hate Oculus. Sony 'Project Morpheus', here's looking at you now.

I was absolutely gutted by this news. I will be looking forward to Sony/Microsoft's offerings in this space and try to forget this tragedy.

Oculus is dead. I only hope the Sony and Valve VR headsets come to fruition and don't sell out to other big brother social media (i.e., user profiling/stalking) companies.

Earlier (pre-Facebook acquisition) opinion around Sony ranged from mildly positive to apathetic, so this new support for the Sony Morpheus was not an outright reversal of earlier opinion. Instead, the accelerated level of support for a large hardware manufacturer appeared to be a mechanism by which the group of backers could create further distance from the perceived encroachment of social media.

For a final subset of backers, this newfound distance from the Oculus Rift was not enough: Facebook's acquiring Oculus VR signaled backers' absolute disillusionment with the core anchor values that held together the broader population of backers on the Kickstarter website

If I had known that the endgame of this deal was a buyout from Facebook, I never would have seeded you guys \$300. I will think twice before backing anything on kick-starter again.

The idea behind kickstarter is small projects circumventing the man and making their own fortune, that's why project creators are allowed to make tiers with no content, like the "10\$ special thanks" tier on the oculus rift page. And that is also why projects are allowed to fail... while rich people are talking about the golden age of kickstarting many active backers are talking about leaving.

I will never contribute on Kickstarter again. This is not how crowd funding should work.

the true damaged:-Kickstarter and crowdfunding:

### 4 Discussion and Formal Theory Building

In Section 3, we present an empirically grounded theoretical account for how anchor values formed around the Oculus Rift. With this substantive theory in place, we begin the "scaling-up" process to expand the scope of findings from this specific case into a more generalizable formal theory (Glaser & Strauss, 1967; Dey, 1999; Suddaby, 2006). This process requires one to both group narrow concepts into higher-level constructs and to theoretically integrate these higher-level constructs with existing literature (Urquhart et al., 2010). In particular, in building formal theory, we relate findings back to existing research on organizational identity and stakeholder theory<sup>2</sup> (c.f. Hill & Jones, 1992; Mitchell, Agle, & Wood, 1997; Scott & Lane, 2007).

First, we observed that several classes of composite thing existed that each possessed a set of espoused values. These composite things included the object under development and each of the groups involved in fundraising (including the fund seeker). The object (the Oculus Rift in this case) appropriated all espoused values relating to the fund seeker (Palmer Luckey and Oculus VR). Further, at least one discernible espoused value anchored each group to the object. We represent this in formal notation as follows:

```
Let FS \{fsv_1, fsv_2, ..., fsv_n\} be Fundseeker's anchor values Obj \{objv_1, objv_2, ..., objv_n\} be the Object's anchor values Gr \{grv_1, grv_2, ..., grv_n\} be a related Group's anchor values E_t be the state of values after an event at some point in time t Then E_tObj \supseteq E_tFS ObjE_t \cap Gr_nE_t \neq \emptyset, ..., ObjE_t \cap Gr_nE_t \neq \emptyset
```

This argument resonates with existing research on organizational identity that suggests upper management are responsible for self-defining and communicating what is attractive about an organization to other stakeholders (Dutton & Dukerich, 1991; Elsbach & Sutton, 1991). This is especially true for entrepreneurs, for whom onlookers and investors often use personal characteristics and interpersonal relationships as proxy to determine external perceptions of legitimacy (c.f. Zott & Huy, 2007). In this case, onlookers' tendency to use a founder's characteristics to infer organizational characteristics meant those onlookers applied Palmer Luckey's value perceptions as an independent quasi-amateur VR enthusiast to Oculus VR/the Oculus Rift.

Second, we observed an "unlawful state" when individuals espoused a value for the fundraising object that contradicted some espoused value for one of the groups involved. We represent this state as:

$$ObjE_t^c = \{ -(gr_1v_1), ..., -(gr_1v_n), ..., -(gr_mv_1), ..., -(gr_mv_n) \}$$

This observation implies that, although the anchor values linking a particular group to a project do not need to overlap perfectly, non-overlapping values may still cause problems if they contradict one another. Researchers have observed similar tensions in traditional investment settings whereby the likelihood that relationships will break down increases as underlying attitudes to tasks and goals differ (e.g., Arnold &

<sup>&</sup>lt;sup>2</sup> Appendix C briefly describes two alternative streams of existing research that readers may find relevant to findings. These streams provide a different perspective on our findings, for which we thank the review team.

Hammond, 1994; Kochhar & David, 1996; Barnea & Rubin, 2010; Collewaert, 2012). Research has not discussed this issue to the same extent in crowdfunding, yet data from the Oculus Rift case demonstrate that projects must also maintain harmonious non-intersecting values with backers because pre-determined material benefits explain only some of participants' motivations.

Third, an object's ability to appropriate new anchor values from a group appeared to be a function of dialogue between the fund seeker and the group in question. This assertion was quantitatively supported by the increased intensity of comments and responses when groups were espousing new values for the object (i.e., during the initial stages of the Oculus Rift campaign and after Facebook acquired Oculus VR). More subtly, this dialogue-related sharing of values was demonstrated by Oculus Rift's appropriation of anchor values relating to an *independent ideology*. Under conditions of uncertainty, backers espoused these values on behalf of the Oculus Rift, and the frequency and peer-like nature of their interaction with Oculus VR staff implicitly legitimized their authority to make such espousals. Thus, in formal terms (where P implies a probability):

$$P \{ ObjE_{t+1} \} \rightarrow \{ ObjE_t + Gr_iE_t \} = dialogue (Gr_iE_t, FSE_t)$$

This role of dialogue in shaping values is once again consistent with previous research on organizational identity, which describes identity as an externally facing social construct that results from complex, dynamic, and ongoing interactions involving organization members at varying levels and a range of other stakeholders (c.f. Scott & Lane, 2000). This social construct then informs individual stakeholders' self-identification based on their ability to accumulate social bonds with other stakeholders and negotiate their position in some common symbolic group (Swann, 1987; Brewer & Gardner, 1996). Perhaps most relevant to the Oculus Rift case is evidence that upper management can help individual stakeholders more quickly accumulate bonds by interacting frequently with the group and making affiliations public (Dutton, Dukerich, & Harquail, 1994).

Fourth, data from the Oculus Rift case suggest anchor values also propagate from the object of fundraising back to groups of funders (weighted according to those groups' relative centrality). Palmer Luckey initially presented the Oculus Rift to a large population of potential backers, many of whom were already experienced Kickstarter users. This pre-existing history of interaction between group members implies some established norms and values, so created a barrier to entry for that community (Rowley, 1997). Palmer Luckey and Oculus VR overcame this barrier and demonstrated their commitment by initially updating and interacting with backers on Kickstarter at least as often as any other website. This communicated the primacy of the Kickstarter platform for the project as opposed to, for example, the MTBS3D forum. Thus:

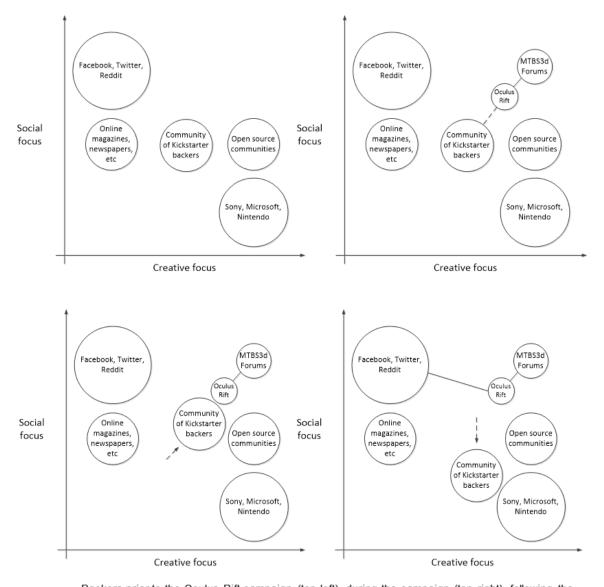
$$P \{ Gr_i E_{t+1} \} \rightarrow \{ Gr_i E_t, Obj E_t \} = dialogue (Gr_i E_t, FSE_t) / \sum_{j=1}^{n} dialogue (Gr_j E_{t+1}, FSE_t)$$

Elevating one group over others serves multiple purposes. On one hand, it imbibes stakeholders with a perceived mutual investment, meaning those stakeholders also expect frequent interactions in the future and, therefore, to have their say in ongoing decision making (Clark & Mills, 1979). As Oculus VR gradually decreased the frequency with which they updated backers, several individuals became frustrated, which makes sense because stakeholders typically gauge their personal influence on organizational identity according to the urgency with which management meet their demands for attention (Mitchell et al., 1997). Further, frequent interactions also increase the organization's role in individuals' self-definition and, thus, the impact of external perceptions of organizational identity on their self-esteem (Scott & Lane, 2000).

One can also see this blending of Oculus VR's organizational identity and backers' self-definition in the change of attitudes towards Facebook after it acquired Oculus VR. Most backers appeared apathetic to Facebook until it acquired Oculus VR, at which point Facebook became an active participator in the project. Competition between social networks deepens boundaries and fuels negative sentiment and discrimination between these networks (Tajfel, 1982; Gimeno & Woo, 1996). In online contexts, research has demonstrated inter-group discrimination in its extreme form as "xenonetworks" (Reay Atkinson et al., 2012); that is, strongly antagonistic communities with little social movement between them. Thus, once Facebook became a competing voice in the dialogue between Oculus VR and its backers, it also became a natural candidate for external vilification. At this point, many in the group focused on the clash between Kickstarter's independent mindset and Facebook's perceived "big business" practices of aggressive advertising and harvesting of personal information. This focus caused an unmaintainable conflict around Oculus Rift, which was now not only a source of veneration but also vilification through its association with Facebook.

Moreover, it also demonstrated a lack of decision making power for the group, who were powerless to stop the acquisition or even to command a response from Oculus VR.

For some backers, the only way to resolve this conflict was to conclude that, because Facebook is villainous, so is Oculus VR. Such a conclusion possibly resulted from the especially high levels of pre-existing vilification applied to Facebook from these backers. If this vilification was important for their identity in other contexts (and not just that of Kickstarter), then any re-evaluation of Facebook would only have cascaded this conflict elsewhere in their personal lives. However, this vilification of Oculus VR was not ideal because such a response denied the group of backers their object of veneration and placed Kickstarter in direct competition with Facebook, a much larger network. However, just as competition increases with greater similarity, so can it decrease when groups perceive themselves less similar. Researchers have demonstrated this fact among, for example, organizational groups (Chen, 1996) and national groups (Henderson, 1997). Hence, the remaining backers chose to adjust their anchor values in a way that minimized competition and allowed Oculus VR to remain a source of (albeit muted) celebration (see Figure 7).



Backers prior to the Oculus Rift campaign (top-left), during the campaign (top-right), following the campaign (bottom-left), and after the acquisition of Oculus VR by Facebook (bottom-right)

Figure 7. Evolution of Anchor Values in the Group of Kickstarter Backers

These observed changes demonstrate how collective self-preservation can influence the evolution of anchor values in a group of backers. It also explains why many backers felt deceived because, while Oculus VR never explicitly misled backers, their choice of behaviors encouraged backers' (profitable) perceptions of the company as possessing an *independent ideology*. We could find no instances wherein Palmer Luckey or other Oculus VR personnel explicitly espoused this anchor value. Yet, Oculus VR's choice to leverage the reputation of Palmer Luckey as an individual, their strategy of responsive and peer-like interaction with backers, and their celebration of other independent developers meant their organizational identity nonetheless assimilated these anchor values from their backers. Backers then took Oculus VR's lack of explicit commentary on the issue as their acknowledgement of this appropriation. As such, many backers, who suffered losses of self-definition and self-esteem because of the change in image, felt betrayed.

We note that evolutions in the anchor values of the group of backers were not limited to defense against larger networks. The group of backers happily embedded the anchor values of the MTBS3D forum as a source of expansion. Conversely, although members of the MTBS3D forum initially welcomed the broader group of backers, they subsequently began to differentiate themselves in terms of technical expertise and commitment. Just as the group of backers distanced themselves from the Oculus Rift to maintain a coherent set of values and independence from Facebook, MTBS3D members appear to have espoused an increasingly exclusive set of values to maintain some degree of independence from Kickstarter.

### 4.1 Implications for Research

This study makes several significant contributions to understanding how groups and projects form anchor values in crowdfunding. First, we present a data-driven theorizing process that engages with this phenomenon, which is absent from existing research. Second, we develop a formal theory that describes how these anchor values evolve and propagate between groups and objects based on dialogue between individuals. Third, we show that crowdfunding objects can appropriate anchor values under uncertain conditions even without their owners' explicit consent.

These contributions address several important blind spots in crowdfunding research and lay the foundation for a more theoretically rich view of associated phenomena. The first major implication is to demonstrate the strong role of organizational identity on the crowdfunding process both as an input and an output. This role of identity suggests that crowdfunding research should make greater efforts to integrate and leverage the mature body of work existing in this area. Doing so not only promises to enhance our understanding of crowdfunding but also to modernize that existing research by applying it in an emerging digital space.

The second major implication, assuming we can further refine and validate theoretical findings developed in this study, surrounds the shift in focus of crowdfunding research to collective-level phenomena. Such a focus promises to move beyond one-to-one dyadic inter-personal relationships and allow researchers to explore hidden inter-group factors that may enhance or limit the use of crowdfunding technologies. We need to explore these factors if the research around crowdfunding is to keep up with the rapid growth and adaptation of the phenomenon itself. Moreover, the focus on anchor values rather than material rewards allows for researchers to expand theorizing beyond a simple economics-based view of crowdfunding markets. The progress made by existing research demonstrates that such a view is clearly important and offers meaningful explanatory value. However, our findings suggest that, taken in isolation, it does not tell the complete picture and so needs to be part of a balanced research agenda that also considers community and identity-based motivations.

### 4.2 Implications for Practice

Observations from this study demonstrate the importance of anchor values in crowdfunding communities. On one hand, this finding is important for organizations that seek to leverage these crowdfunding communities because the nature of interaction with such communities may impact their organizational identity in unanticipated ways. As such, they have a responsibility to the community to be upfront with long-term goals, both to avoid damaging that community and, more selfishly, to avoid harmful fallout to their organizational identity if expectations break down.

This need to consider backers' implicit expectations is also an important consideration for designers and administrators of crowdfunding platforms as we can see from users claiming they would not use Kickstarter again after Facebook acquired Oculus VR. Thus, platform designers must ensure they carefully manage the collective identity and anchor values associated with their community of backers. Platform designers must not only carefully differentiate anchor values from larger existing platforms, but also maintain room for

expansion among small feeder communities. This latter point serves to explain why many successful platforms grew by initially focusing on enabling projects in specialized domains and then expanding to a broader remit. For example, Indiegogo initially focused on crowdfunding films before expanding to allow any cause-related projects. Similarly, Pozible initially focused on artistic projects yet has recently broadened in scope to include boutique food producers and even scientific research. Such expansions in scope are possible only once a platform has established a cohesive identity. The philanthropic and artistic nature of these two platforms, respectively, means they can expand without running the risk of becoming just a smaller, less successful version of Kickstarter.

#### 4.3 Limitations

This study has several important limitations. Firstly, the focus on one extreme case means that the statistical generalizability (c.f. Yin 2009) of findings remains open to further investigation. It is quite possible that communities exist in and across different crowdfunding platforms in which other mechanisms play an important role in anchor values. We also do not know how our findings relate to other paradigms for crowdfunding. For example, in peer-to-peer lending platforms, people invest largely for financial reasons (Bachmann et al., 2011, Duarte, Siegel, & Young, 2012). In equity-based crowdfunding platforms, investors pursue goals such as portfolio development (Ley & Weavin, 2011; Stemler 2013). In charitable crowdfunding platforms, investors fund projects based on personal or prosocial goals such as personal satisfaction, to promote equality, or to fulfil religious duty (Heller & Badding, 2012; Liu, Chen, Chen, Mei, & Salib, 2012). Even in the rewards-based crowdfunding paradigm, some platforms are more specific in the types of projects they accommodate (e.g., Microryza supports scientific research, SellaBand supports independent musicians, and DonorsChoose supports educational projects). Each of these platforms differs from competitors primarily by the community of users and their associated anchor values, yet we do not know how explicitly narrowing the focus at a platform level may impact the evolution of anchor values in projects.

Secondly, the case we used in this study represents a particularly volatile environment in which different communities came together with significantly different assumptions. This volatility made the evolution of anchor values visible in a way that may not occur with more homogeneous groups. Under such circumstances, the embedding and evolution of anchor values may proceed with comparatively little explicit discussion. This limitation is important for future research that seeks to extend and test the proposed theory because that research may need to select cases and research methods accordingly.

Thirdly, while the focus on online discussion for data gathering was appropriate for this study, we will likely gain value from supporting this data with self-reported personal data in future research (e.g., interviews, surveys, focus groups). Such data could triangulate and expand theorizing to include personal beliefs and network effects from orthogonal social networks and online communities. Put differently, interviews and surveys may help to explain the relation of espoused anchor values to implicit personal values. Each of these limitations call for further case and field study research in this area.

## 5 Summary

This study explores the evolution of anchor values in crowdfunding communities based on a grounded theory analysis of the Kickstarter fundraising campaign for the Oculus Rift virtual reality headset developer kits. In analyzing this case, we show how dialogue between the surrounding communities embedded those communities' anchor values in the Oculus Rift. A self-preservational shift in these anchor values was later necessary to minimize collective losses of identity and self-esteem after Facebook acquired Oculus VR. These findings encourage IS researchers to explore the largely neglected community-building aspect of crowdfunding. Further, these findings contribute to scholarly understanding of crowdfunding by relating activities to broader stakeholder theory and organizational identity research.

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# **Appendix A: Coding Breakdowns**

**Table A1. Coding Breakdowns** 

		Table A1. Couling Dieakdowns		
Open codes	The Oculus Rift, Palmer Luckey and individual Oculus VR staff members, backers, backers who are also members of the MTBS3D forum, Facebook, project launch, completion of fundraising, rewards delivery, Facebook acquisition, <i>VR development, independent ideology, community, corporate</i> , criticism, defensive			
	Compositional coding (drawing on Weber, 2012)			
	Things	Individual backers, individual backers who are also members of the MTBS3D forum, Palmer Luckey and individual Oculus VR staff members		
	Composite things	Backer_Group (composed of individual backers)		
		MTBS3D (composed of members of the MTBS3D forum)		
		Oculus_VR (composed of Palmer Luckey and other staff)		
		Facebook (comprised of Mark Zuckerberg and other staff)		
	Class	Individual (includes Palmer Luckey and individual Oculus VR staff members, backers, and members of the MTBS3D forum)		
		Group (includes Oculus_VR, Backer_Group, and MTBS3D)		
		Object (Oculus_Rift)		
	Property	Anchor_Values (which are properties of a Group or Object)		
	Attributes	VR_Development, Independent_Ideology, Community, Corporate; (all of which are attributes in particular to Anchor_Values)		
	State	e.g. Backer_Group.Anchor_values {Independent_Ideology, Community}		
	Lawful states	Independent_ideology can't be combined with Corporate		
		1. Project launch		
	Events	2. Completion of fundraising		
		3. Facebook acquisition		
Axial	Unlawful event	Facebook changes from external actor to embedded Group		
coding	History of a thing	1. Oculus_Rift.Anchor_values{Independent_ Ideology, VR_development};		
		Oculus_VR.Anchor_values{Independent_ Ideology, VR_development};		
		MTBS3D.Anchor_values{VR_development, Community}; Backer_Group.Anchor_values{Independent_Ideology, Community, VR_development}		
		<ol> <li>Oculus_Rift.Anchor_values{Independent_ Ideology, VR_ development, Community}; Oculus_VR.Anchor_values{Independent_ Ideology, VR_ development};</li> </ol>		
		MTBS3D.Anchor_values{VR_ development, Community}; Backer_Group.Anchor_values{Independent_ Ideology, Community, VR_ development};		
		3. Facebook.Anchor_values{VR_ development, Corporate, Community};		
		Oculus_VR.Anchor_values{VR_ development, Corporate};		
		Oculus_Rift.Anchor_values{VR_ development, Corporate}; MTBS3D.Anchor_values{VR_ development, Community};		
	Interaction between things	Oculus_VR (ergo Oculus_Rift) appropriates Independent_Ideology from Backer_Group		
		Oculus Rift appropriates Community from Backer_Group and MTBS3D		
		Oculus_VR (ergo Oculus_Rift) appropriates Corporate from Facebook		
		Backer_Group remove Community and Independent_Ideology from Oculus_VR (ergo Oculus_Rift) to separate groups and resolve conflict		
	Causal coding (fr	rom Strauss & Corbin, 1998)		
i e e e e e e e e e e e e e e e e e e e				

Р	henomenon	Anchor values binding the groups and object involved in the crowdfunding of the Oculus Rift
	Causal conditions	The object (Oculus_Rift) continuously inherited the anchor values of the group seeking fundraising (initially Oculus_VR, later also Facebook)
		The object (Oculus_Rift) appropriated/disappropriated anchor values from other groups through intense dialogue
	Context	Palmer Luckey, historically a quasi-amateur VR enthusiast with an inclination towards independent development, acted as the face of Oculus_VR for the Backer_Group and interacted with them in a peer-like fashion
	Intervening conditions	Uncertainty existed around Oculus_VR's anchor values relating to Independent_Ideology, due to their lack of explicit value espousal
Act	tion strategies	Oculus_VR chose to allow assumptions of anchor values relating to an Independent_Ideology to persist, even arguably encouraging them
	Consequences	Oculus_VR (ergo the Oculus_Rift) appropriated anchor values relating to an Independent_Ideology from the Backer_Group
Co		Oculus_VR (ergo the Oculus_Rift) disappropriated anchor values relating to an Independent_Ideology and Community from the Backer_Group after the Facebook acquisition

# **Appendix B: List of Sampling Sources**

**Table B1. List of Sampling Sources** 

Source	Sampling	
Primary source	ce (sampled exhaustively)	
Kickstarter	General description, including 1 video and 7 images 53 updates, including 37 videos, 148 images, and 1,156 responses from backers 2,202 comments in the general comments section 9,522 backer profiles	
Secondary so	ources (sampled theoretically)	
Oculus VR website	General description, including images and videos Developers' blog (4 posts from 22 May 2013 to 30 December 2013), including diagrams of technical concepts Discussion forum	
MTBS3D forum	Dedicated subforum for Oculus VR	
Reddit	Dedicated Subreddit for the Oculus Rift General discussion area, such as:  "I am Palmer Luckey, Designer of the Oculus Rift AMA!" (https://www.reddit.com/r/IAmA/comments/yz23l/i_am_palmer_luckey_designer_of_the_oculus_rift _ama/), 28 <sup>th</sup> August 2012  "The future of VR"(https://www.reddit.com/r/oculus/comments/21cy9n/the_future_of_vr/cgby5hj?context=3), 25 <sup>th</sup> March 2014	
Facebook	Oculus VR's account (https://www.facebook.com/oculusvr)	
YouTube	Videos linked from Kickstarter website (sampled to capture additional commentary) Additional third-party videos, such as:  "Oculus Rift Development Kit Running PTSD Therapy System" (www.youtube.com/watch?v=ZKtyAUIh6F0&feature=player_detailpage)  "Virtual Worlds Using Head-mounted Displays" (www.youtube.com/watch?v=R0-dsbeasgA&feature=player_embedded)  "EVR—EVE Fanfest Oculus Rift" (www.youtube.com/watch?feature=player_detailpage&v=TjlupjLDv5o)  'OCULUS RIFT + MINECRAFT = STUNNING AND AMAZING!' (www.youtube.com/watch?v=8RN7PD2qiJE)  "The Engadget Interview: Oculus Rift's John Carmack   Engadget" (www.youtube.com/watch?v=AkasIFGpSHI)  "RIP Oculus 2012-2014" (www.youtube.com/watch?v=v1-lp4bzAdo)  "Why Facebook bought Oculus' (www.youtube.com/watch?v=qs2W2e0Is_o)  "Palmer Luckey Explains Why Facebook's Oculus Acquisition Is Good For Gamers" (www.youtube.com/watch?v=ADB36Esss94)  "Oculus VR's Palmer Luckey and Nate Mitchell Talk Oculus Share   Engadget" (www.youtube.com/watch?v=7yz2mUsb31U)  "Oculus Rift's Founder Palmer Luckey at CES 2014   Engadget" (www.youtube.com/watch?v=KY6JqMVKOpc)  "Oculus VR's Palmer Luckey—'Virtual Reality: The Road Ahead'—D.I.C.E. 2014 Summit" (www.youtube.com/watch?v=cs58OrTG6LU)  "Facebook's Zuckerberg Shares Oculus Vision: Iribe" (www.youtube.com/watch?v=D9p2uHJajQo)	

Media sites covering developments throughout the sampling period, such as:

"Oculus Rift Kickstarter brings virtual reality gaming back to life", Slashgear (URL)

"John Carmack and Gabe Newell Are Very Excited About This Virtual Reality Gaming Headset", Kotaku (http://kotaku.com/5930871/john-carmack-and-gabe-newell-are-very-excited-about-this-virtual-reality-gaming-headset)

"Oculus Rift virtual reality gaming goggles launched on Kickstarter", *The Verge* (http://www.theverge.com/2012/8/1/3212895/oculus-rift-virtual-reality-head-mounted-display-kickstarter)

"Oculus Rift is getting 3D dev kits to mainstream and indie game devs!", *Tasty Whale* (http://www.tastywhale.com/2012/08/02/oculus-rift-is-getting-3d-dev-kits-to-mainstream-and-indie-game-devs/)

"Oculus Rift head-mounted display finds funding from developers", *ArsTechnica* (http://arstechnica.com/gaming/2012/08/oculus-rift-head-mounted-display-finds-funding-from-developers/)

"\$1m In 2 Days—Oculus Rift—Immersive 3d Headmounted Eyeware", *QPORIT* (http://qporit.blogspot.ie/2012/08/1m-in-2-days-oculus-rift-immersive-3d.html)

"Digital Foundry vs. Oculus Rift', *Eurogamer* (http://www.eurogamer.net/articles/df-hardware-oculus-rift-interview)

"Virtual reality's time to shine: Hands-on with the Oculus Rift", *Arstechnica* (http://arstechnica.com/gaming/2012/09/virtual-realitys-time-to-shine-hands-on-with-the-oculus-rift/)

"Valve Reveals VR Headset as Next Hardware Project", *Tom's Hardware* (http://www.tomshardware.com/news/Valve-VR-Headset-Michael-Abrash,17462.html)

"GameSci: Where's Our Virtual Reality?", *Popular Science* (http://www.popsci.com/gadgets/article/2012-10/popgames-where-are-our-virtual-reality-games)

"GAME: NEXT Launch & showcase with Project Holodeck and Oculus Rift", Science Gallery (https://m.sciencegallery.com/events/2012/12/game-next-project-holodeck-and-oculus-rift)

"How fast does 'virtual reality' have to be to look like 'actual reality'?", *ArsTechnia* (http://arstechnica.com/gaming/2013/01/how-fast-does-virtual-reality-have-to-be-to-look-like-actual-

Other

reality/)
"Oculus Rift: deep inside the immersive, disorienting virtual reality gaming experience", *The Verge* 

"Oculus Rift: deep inside the immersive, disorienting virtual reality gaming experience", *The Verge* (http://www.theverge.com/2013/1/7/3848914/oculus-rift-deep-inside-the-immersive-disorienting-virtual-reality)

"Oculus Rift Shakes Up Gaming With Virtual-Reality Headset", *AllThingsD* (http://allthingsd.com/20130212/oculus-rift-shakes-up-gaming-with-virtual-reality-headset/)

"Preparing for VR: Combining LEAP Motion+Cinemizer OLED headtracking+Kinect Voice Recog in PS3 and Xbox 360 games", *The Game Veda* (http://the-games-veda.blogspot.co.uk/2013/03/preparing-for-vr-combining-leap.html)

"Valve's Joe Ludwig on the uncertain future of virtual reality and partnering with Oculus", *Engadget* (http://www.engadget.com/2013/03/18/valve-joe-ludwig-interview/)

"Torque 3D and Oculus Rift (A Tale in Pictures)", Garage Games (http://www.garagegames.com/community/blogs/view/22225)

"Indies Grab the Controls at a Game Conference", NY

Times(http://www.nytimes.com/2013/04/01/arts/video-games/game-developers-conference-celebrates-indie-creators.html?\_r=0)

"GTC 2013: Oculus VR Reveals Future of Oculus Rift at ECS", *PC Perspective* (http://www.pcper.com/news/General-Tech/GTC-2013-Oculus-VR-Reveals-Future-Oculus-Rift-ECS)

"See what Team Fortress 2 looks like using the Oculus Rift", *PC Gamer* (http://www.pcgamer.com/oculus-rift-team-fortress-2/)

"Powering the Oculus Rift with USB", *Hackaday* (http://hackaday.com/2013/04/03/powering-the-oculus-rift-with-

usb/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+hackaday%2FLgoM+%28Hack+a+Day%29)

"Preparing for VR: CRYSIS 3 1080P 3D HMD GAMING WITH HEADTRACKING ON THE SMD ST1080 AND CINEMIZER OLED HMDS", *The Game Veda* (http://the-games-veda.blogspot.co.uk/2013/04/preparing-for-vr-crysis-1080p-3d-hmd.html)

"Oculus Rift Razer Hydra Tuscany Demo Now Available from Sixense", RoadToVR (http://www.roadtovr.com/oculus-rift-razer-hydra-tuscany-demo-download-sixense/)

"The Sweetest Thing You'll See Today Is A 90-Year-Old Grandmother Losing It Using The Oculus Rift", *Kotaku* (http://kotaku.com/the-sweetest-thing-youll-see-today-is-a-90-year-old-gra-472924742)

"Oculus Rift Developer Andrew Scott Reisse Dead At 33", *Game Revolution* (http://www.gamerevolution.com/news/oculus-rift-developer-andrew-scott-reisse-dead-at-33-19619)

"Oculus Rift Developer Killed, Was A Bystander During a Police Chase", *Kotaku* (http://kotaku.com/oculus-rift-developer-killed-a-bystander-during-a-poli-510805442)

"Unreal Engine 4 now supports Oculus Rift, introduces 'Integrated Partners Program'", *Engadget* (http://www.engadget.com/2013/06/06/unreal-engine-4-oculus-rift/)

"Oculus: 'Hawken VR is coming—Stay tuned'", RoadToVR (http://www.roadtovr.com/hawken-oculus-rift-support-update/)

"Oculus Rift HD prototype VR headset appears at E3, we go hands (and eyes) on (update: video)", Engadget (http://www.engadget.com/2013/06/11/oculus-rift-hd-prototype-vr-headset-hands/)

"Sony studios boss 'loved' using Oculus Rift VR headset, wouldn't comment on PS4 support", Polygon (http://www.polygon.com/2013/6/12/4424314/oculus-rift-ps4)

"This is not a toy: Oculus Rift's virtual talents could transform real lives', PC World (http://www.pcworld.com/article/2043946/this-is-not-a-toy-oculus-rifts-virtual-talents-could-transform-real-lives.html)

"Virtual reality: Lessons from the past for Oculus Rift, *BBC News* (http://www.bbc.com/news/technology-23877695)

"Oculus Rift and VR Development Widespread at EuroGamer Expo 2013", RoadToVR (http://www.roadtovr.com/oculus-rift-vr-development-widespread-at-eurogamer-expo-2013/)

"Apple Patents Oculus Rift-Like 3D Headset", Laptop Magazine (http://www.laptopmag.com/articles/apple-oculus-rift-3d-headset)

"Oculus VR Raises \$75 Million To Help Bring Virtual Reality Goggles To The

Masses", *Tech Crunch* (http://techcrunch.com/2013/12/12/oculus-vr-raises-75-million-to-help-bring-virtual-reality-goggles-to-the-masses/)

"Flush with cash, Oculus plans ambitious new VR headset", *The Verge* (http://www.theverge.com/2013/12/13/5207906/flush-with-cash-oculus-plans-ambitious-new-vr-headset)

"How the team behind Oculus Rift conquered the 'Uncomfortable Valley'", *Wired* (http://www.wired.co.uk/news/archive/2013-12/17/oculus-rift)

"Oculus Rift User Guide", Team Fortress 2 Official Wiki (https://wiki.teamfortress.com/wiki/Oculus Rift User Guide)

Post by Mark Zuckerberg on Facebook

(https://www.facebook.com/zuck/posts/10101319050523971)

"Facebook, Oculus, and Trust", *Giant Bomb* (http://www.giantbomb.com/articles/facebook-oculus-and-trust/1100-4884/)

"Oculus Rift and the Future of Content Marketing", Newsroom365 (http://www.newsrooms365.com/2015/04/oculus-rift-future-content-marketing/)

### **Appendix C: Additional Relevant Literatures**

In addition to the relationship between the findings from this study and existing research on organizational identity and stakeholder theory, relationships also emerged that potentially link findings with two other research streams.

The first research stream refers to discussions about "shared value" in the business and consumer psychology literature. The recent global financial crisis has caused many individuals to become disillusioned with a perceived culture of corporate greed and irresponsibility (Reinhart & Rogoff, 2009; Swedberg, 2010; Porter & Kramer, 2011; Szmigin & Rutherford, 2013), which has led to an increasingly anti-capitalist sentiment among portions of the population (Stiglitz, 2009; Barton, 2011). To address these concerns, some have called for renewed focus on business to create "shared value" (i.e., products, services, and initiatives that encourage societal progress rather than just commercial success) (e.g., Karnani, 2011; Porter & Kramer, 2011). Such shared value demands that organizations become more broadly benevolent and ethical and that they proactively engage with external social harms (which, among other things, could otherwise create poor market conditions and internal costs) and create a fairer world. This call for shared value extends the concept of corporate social responsibility, for which motivations are arguably reputational in nature (Sen & Bhattacharya, 2001; Beschorner, 2014).

The Oculus Rift case is relevant to this discussion due to the role of *independent ideology* anchor values. Those backers most disappointed with the acquisition appeared to see Oculus VR not only as a poster child for crowdfunding, but also more fundamentally as a symbol of anti-corporate protest and collective action. Thus, many of these backers saw the Oculus Rift as providing a tangible precedent capable of encouraging change elsewhere. Viewed as such, one can interpret Facebook's acquiring Oculus VR as an abandonment of social shared value in favor of more short-term shareholder-friendly financial returns.

The second relevant stream of research deals with the psychology of belief formation and reinforcement. Group membership heavily influences this behavior—potentially at the expense of personal reasoning and reflection (e.g., Hogg & Turner, 1985; Greenwald & Banaji, 1995; Bar-Tal, 2000; Abrams & Hogg, 2006). In an attempt to understand the dynamics of group therapy, Bion (2013) documents that groups of individuals often covertly conspire to resist psychoanalysis, which revolves around three bonding activities: "salacious talk", shared objects of "external vilification", and shared objects of "religious veneration". Shirky (2005) notes that open source communities adopt similar behaviors to maintain group cohesiveness and resist outside manipulation.

In this case, it appears the Oculus Rift became a bonding-enabling object of religious veneration for many backers. Thus, one could describe the conflict observed when Facebook (implicitly villainous according to these values) merged with Oculus VR as a form of cognitive dissonance, a state of mental stress observed when contradictory beliefs exist simultaneously (see Festinger, 1957, 1962). Put differently, the Oculus Rift became both an object that was simultaneously beyond criticism and a necessary outlet for it. Thus, to resolve this discomfort, the Oculus Rift had to lose its status of veneration and/or Facebook lose its status of vilification. For other backers, the stress was too great and the group was no longer sustainable, which meant they called the value of crowdfunding (and specifically Kickstarter) into question.

We could not practically build a single formal theory in this study that captured the stakeholder perspective and both of these research streams. However, we acknowledge these research streams here because each has the potential to create further insights and opportunities for theory development.

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