

Chapter 12. Model Five: User-Generated Content

You might think that Facebook, reddit, and Twitter are media sites, and you'd be right: they make their money from advertising. But their primary goal is rallying an engaged community that creates content. Similarly focused sites like Wikipedia make their money from other sources, such as donations.

We call these businesses *user-generated content* (UGC) sites. They deserve their own business model because their primary concern is the growth of an engaged community that creates content; without user activity, the sites stop functioning entirely. If you've decided that you're in the UGC business, then this chapter explains what metrics you'll need to track.

In this model, you're focused on the creation of good content, which means not only posts and uploads but also votes, comments, spam flagging, and other valuable activity. UGC is about the amount of good content versus bad, and the percentage of users who are lurkers versus creators. This is an *engagement funnel*,^[43] similar to the traditional conversion funnels of an e-commerce model—only instead of moving prospects toward buying, you're constantly trying to move your user population to higher and higher levels of engagement, turning lurkers into voters, voters into commenters, and so on.

Wikipedia is an example of a UGC site—good, reliable, well-referenced content helps the site; flame wars or frequent edits between two battling contributors are bad for it. Just as an e-commerce site creates a funnel out of the steps through which a buyer must proceed, a UGC site measures the percentage of users who behave in certain ways. Revenue often comes from advertising or donations, but it's incidental to the core business of engaging users.

Consider a social network focused on link sharing, such as reddit. Anyone can read content and share it using social buttons on the site. Once a user has an account, she can vote content up or down, comment on content, or post content of her own. She can create her own group discussion around a topic. And she

can use her account to message other users privately.

The tiers of engagement create a natural funnel, from the completely disengaged, fly-by visitors who come just once, to the hardcore. One of the core functions of the site is to acquire one-time visitors and turn them into users with accounts, and ultimately, into collaborators. **Figure 12-1** shows an example engagement funnel, and lists what reddit, Facebook, and YouTube call *tiers*. Note that not every UGC site has all of these tiers.

	EXAMPLES		
	reddit	Facebook	Youtube
DRIVE-BY (ONE-TIME) VISITORS	Visitors	Visitors	Viewers
RETURNING VISITORS	Lurkers	Lurkers	Viewers
ENROLLED USERS	redditors	Users	Google account holders
VOTERS/FLAGGERS	Vote up/down	Like, flag	Thumb up/down
COMMENTERS	Post a reply	Post a comment	Post a comment
CONTENT CREATORS	Original posters (OP)	Poster	Uploader
MODERATORS	Subreddit mods	Group admin	
GROUP CREATORS	Subreddit creators	Event, place, or group creators	Channel owner

Figure 12-1. Every social network in the world just wants you to love it

This pattern of gradually increasing engagement isn't true only of websites—it's

an archetype that happens time and again online. Twitter is similar to reddit: people use it to chat, to share links, and to comment on links. Instead of up-voting, there's a retweet button; instead of down-voting, there's blocking. Flickr, Facebook, LinkedIn, and YouTube all have roughly similar engagement tiers.

A UGC company cares about several metrics in addition to those we've seen in the media model in **Figure 12-1**:

Number of engaged visitors

How often people come back, and how long they stick around.

Content creation

The percentage of visitors who interact with content in some way, from creating it to voting on it.

Engagement funnel changes

How well the site moves people to more engaged levels of content over time.

Value of created content

The business benefit of content, from donations to media clicks.

Content sharing and virality

How content gets shared, and how this drives growth.

Notification effectiveness

The percentage of users who, when told something by push, email, or another means, act on it.

Visitor Engagement

A UGC site is successful when its visitors become regulars. As we've seen with SaaS churn, we look at recency to understand this—that is, when was the last time someone came back to the site? One quick way to measure this is the day-to-week ratio: how many of today's visitors were here earlier in the week? It's an indicator of whether people are returning on a regular basis, even if users

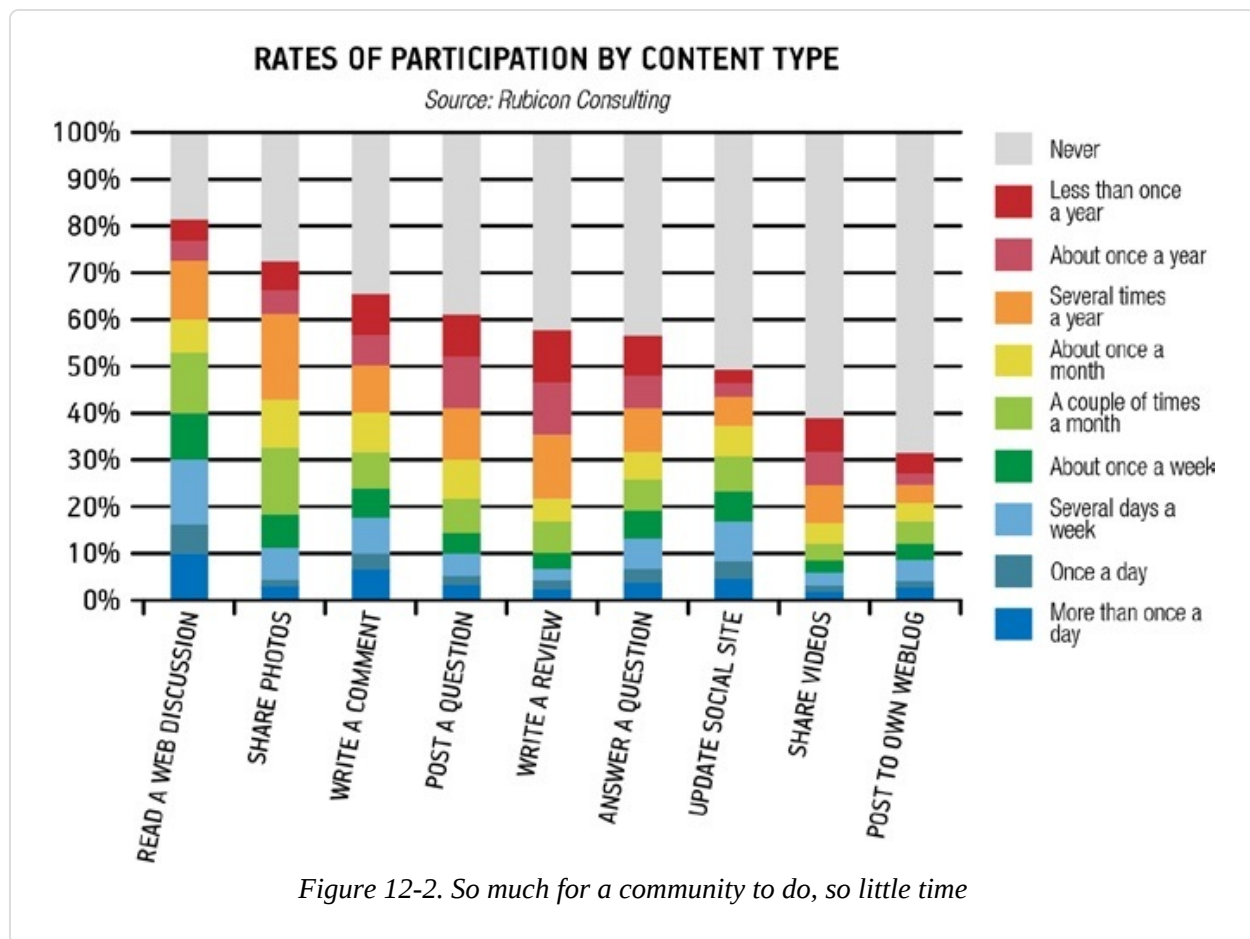
an indicator of whether people are returning on a regular basis, even if users don't create an account.

Another metric is the average days since last visit, although you need to exclude users who are beyond some cutoff limit (such as 30 days) from this calculation; otherwise, churned users will skew your numbers. For users who have accounts and take actions, you can measure engagement in other ways: days since last post, number of votes per day, and so on.

Content Creation and Interaction

User participation varies wildly by UGC site. On Facebook, every user logs in to do more than view a profile because it's a "walled garden" for content. Reddit is more open, but still has a high percentage of users who log in, because being logged in is required to up-vote posts.^[44] On the other hand, sites like Wikipedia or YouTube, where the vast majority of users are simply consuming content, must rely on passive signals such as clickstreams or time on page, which serve as a proxy for ratings.

Interaction also varies significantly depending on what you're asking users to do. A few years ago, Rubicon Consulting published a study of online community participation rates. It looked at how often respondents performed certain actions online. As **Figure 12-2** shows, there's significant variance in levels of engagement.



Early on, UGC sites need to solve a chicken-and-egg problem. They need content to draw in users, and users to create content. Sometimes, this content can be seeded from elsewhere: Wikimedia was originally going to be a site written by experts, but eventually pivoted to a community-edited model—it overcame the chicken-and-egg issue by having content in place at the start.

The rate of content creation and the rate of enrollment matter a lot at the outset. Later, the question becomes whether good content is rising to the top, and whether people are commenting on it—signs that your user base cares about the discussion and is building a community.

Engagement Funnel Changes

On reddit, there are several tiers of engagement: lurking, voting, commenting, subscribing to a subreddit, submitting links, and creating subreddits. Each tier represents a degree of involvement and content generation by a user, and each

represents a degree of involvement and content generation by a user, and each type of user represents a different business value to the company. Every UGC site has a similar funnel, though the steps may be different.

The steps in the funnel aren't mutually exclusive—someone can comment without voting, for example—but these steps should be arranged in an order of increasing value to your business model as a user moves down the funnel. In other words, if someone who posts content is “better” for you than someone who simply shares a story, she's in a later tier of the funnel. The key is to move as many users into the more lucrative tiers as possible (making more content and better selection of content that will be popular).

One way to visualize this is by comparing the tiers of engagement over time. This is very similar to the SaaS upselling model: for a given cohort of users, how long does it take them to move to a more valuable stage in the engagement funnel? To see this, lay out the funnel by time period (for example, per month) or by cohort (see [Table 12-1](#)).

Table 12-1. Visitor funnel by monthly cohort

Totals	Jan	Feb	Mar	Apr
Unique visitors	13,201	21,621	26,557	38,922
Returning visitors	7,453	14,232	16,743	20,035
Active user accounts	5,639	8,473	9,822	11,682
Active voters	4,921	5,521	6,001	7,462
New subscribers/members	4,390	5,017	5,601	6,453
Active commenters	3,177	4,211	4,982	5,801
Active posters	904	1,302	1,750	2,107
Active group creators	32	31	49	54

If we assume that each tier of the engagement funnel does all the “previous” actions—for example, commenters vote, posters comment, and so on—we can display the change over time as a stacked graph (see [Figure 12-3](#)).

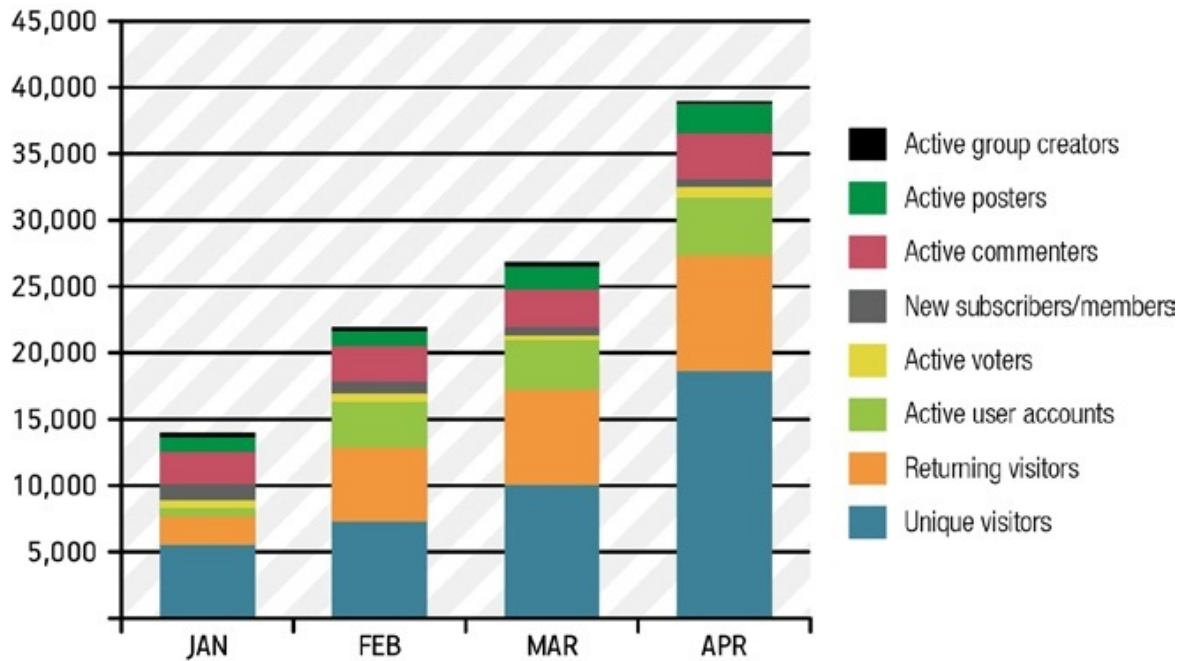


Figure 12-3. Can you split your users into distinct groups based on behavior?

This gives us an idea of growth for each segment, but it doesn't really show us what parts of the engagement process are getting better or worse. For this, we need to first calculate the conversion rates of the engagement funnel for each month (see [Table 12-2](#)).

Table 12-2. Conversion rates of the engagement funnel by month

Change from past period	Jan	Feb	Mar	Apr
Unique visitors	N/A	163.8%	122.8%	146.6%
Returning visitors	N/A	191.0%	117.6%	119.7%
Active user accounts	N/A	150.3%	115.9%	118.9%
Active voters	N/A	112.2%	108.7%	124.3%
New subscribers/members	N/A	114.3%	111.6%	115.2%
Active commenters	N/A	132.5%	118.3%	116.4%
Active posters	N/A	144.0%	134.4%	120.4%
Active group creators	N/A	96.9%	158.1%	110.2%

Once we know the conversion rates for each step, we can look at relative changes in rates from month to month (see [Table 12-3](#)).

Table 12-3. Relative changes in conversion rates by month

Change in funnel	Jan	Feb	Mar	Apr
Unique visitors	N/A	N/A	N/A	N/A
Returning visitors	N/A	↑ 116.6%	→ 95.8%	↓ 81.6%
Active user accounts	N/A	↓ 78.7%	→ 98.5%	→ 99.4%
Active voters	N/A	↓ 74.7%	↓ 93.8%	↑ 104.5%
New subscribers/members	N/A	↑ 101.9%	↑ 102.7%	↓ 92.7%
Active commenters	N/A	↑ 118.1%	↑ 108.8%	↓ 93.6%
Active posters	N/A	↑ 108.7%	↑ 113.6%	↑ 103.4%
Active group creators	N/A	↓ 67.3%	↑ 117.6%	↓ 91.5%

With this data, we can see which things got better or worse based on changes we've made, or the different experience a particular cohort had on the site. For example, a smaller percentage of first-time visitors returned to the site in March, but a greater percentage of people commented and created posts that month. This lets us make changes and keep score.

Eventually, you'll hit a "normal" engagement funnel where a stable percentage of people are participating in each stage. This is OK; UGC sites have a power curve of content creation, where a small number of people create the vast majority of content. We'll give you some examples of ideal conversion rates for engagement funnels in [Chapter 27](#).

Value of Created Content

The content your users create has a value. That might be the number of unique visitors who see it (in the case of a site like Wikipedia), the number of page

views that represent ad inventory (Facebook), or a more complicated measurement like affiliate revenues generated by clicks on content users post (as in the Pinterest affiliate model).^[45]

Regardless of how you value content, you'll want to measure it by cohort or traffic segment. If you're trying to decide where to invest in visitor acquisition, you'll want to know which referring sites bring valuable users. Perhaps you're looking for a particular demographic (as Mike Greenfield did when he compared engagement and value across user segments on Circle of Friends and launched Circle of Moms as a result).^[46]

Content Sharing and Virality

A UGC site thrives on its visitors' behavior, and key among those behaviors is sharing. YouTube monetizes user content, relying on popular videos with virality to drive traffic and ad inventory. If your site is an unwallled garden—that is, users can share freely with the rest of the world—then tracking how content is shared is critical. It's less important for walled-garden sites like Facebook, whose goal is to keep users within the application.

While tweeting and liking content is useful, remember that a lot of sharing happens through other systems—RSS feeds and email, in particular. In fact Tynt, which makes tools for publishers to tag sharing when a link is copied and pasted, estimates that as much as 80% of sharing happens through email.^[47]

You want to track how content is shared for several reasons:

- You need to know if you're achieving a level of virality that will sustain your business.
- You want to understand how content is shared and with whom. If every reader sends a URL to someone else, and that person then returns, you need to know that the visit was the result of a share, because the value of the content wasn't just the ad inventory it presented, but also the additional visit it generated.
- It will help you understand whether you should consider a paywall-style monetization strategy.

Notification Effectiveness

We used to design exclusively for the Web. In recent years, designers rallied around portable devices with cries of “design for mobile” or “mobile first.” But there’s good reason to think that the future of applications isn’t mobility—it’s notification.

Today’s mobile device is a prosthetic brain. We rely on it to remind us of meetings, tell us when others are thinking of us, and find our way home. Smart agent technologies like Siri and Google Now will only reinforce this. Already, our mobile devices’ notification systems are a battleground, with applications fighting for our attention.

In a UGC model, the ability to keep pulling users back in through notifications is an essential part of sustaining engagement.

Fred Wilson calls mobile notification a game changer:^[48]

Notifications become the primary way I use the phone and the apps. I rarely open Twitter directly. I see that I have “10 new @mentions” and I click on the notification and go to [the] Twitter @mention tab. I see that I have “20 new checkins” and I click on the notification and go to the Foursquare friends tab.

He cites three main reasons why this is such a significant shift:

First, it allows me to use a lot more engagement apps on my phone. I don’t need them all on the main page. As long as I am getting notifications when there are new engagements, I don’t really care where they are on the phone.

Second, I can have as many communications apps as I want. I’ve currently got SMS, Kik, Skype, Beluga, and GroupMe on my phone. I could have plenty more. I don’t need to be loyal to any one communication system, I just need to be loyal to my notification inbox.

And finally, the notification screen is the new home screen. When I pull out my phone, it is the first thing I do.

You measure notification effectiveness in much the same way as you measure email delivery rates: you’re sending out a certain number of messages, and some of those messages produce the outcome you’re hoping for. This is true whether those messages are sent by email, SMS, or mobile application.

Visualizing a UGC Business

Figure 12-4 represents a user’s flow through a UGC business, along with the key metrics at each stage.

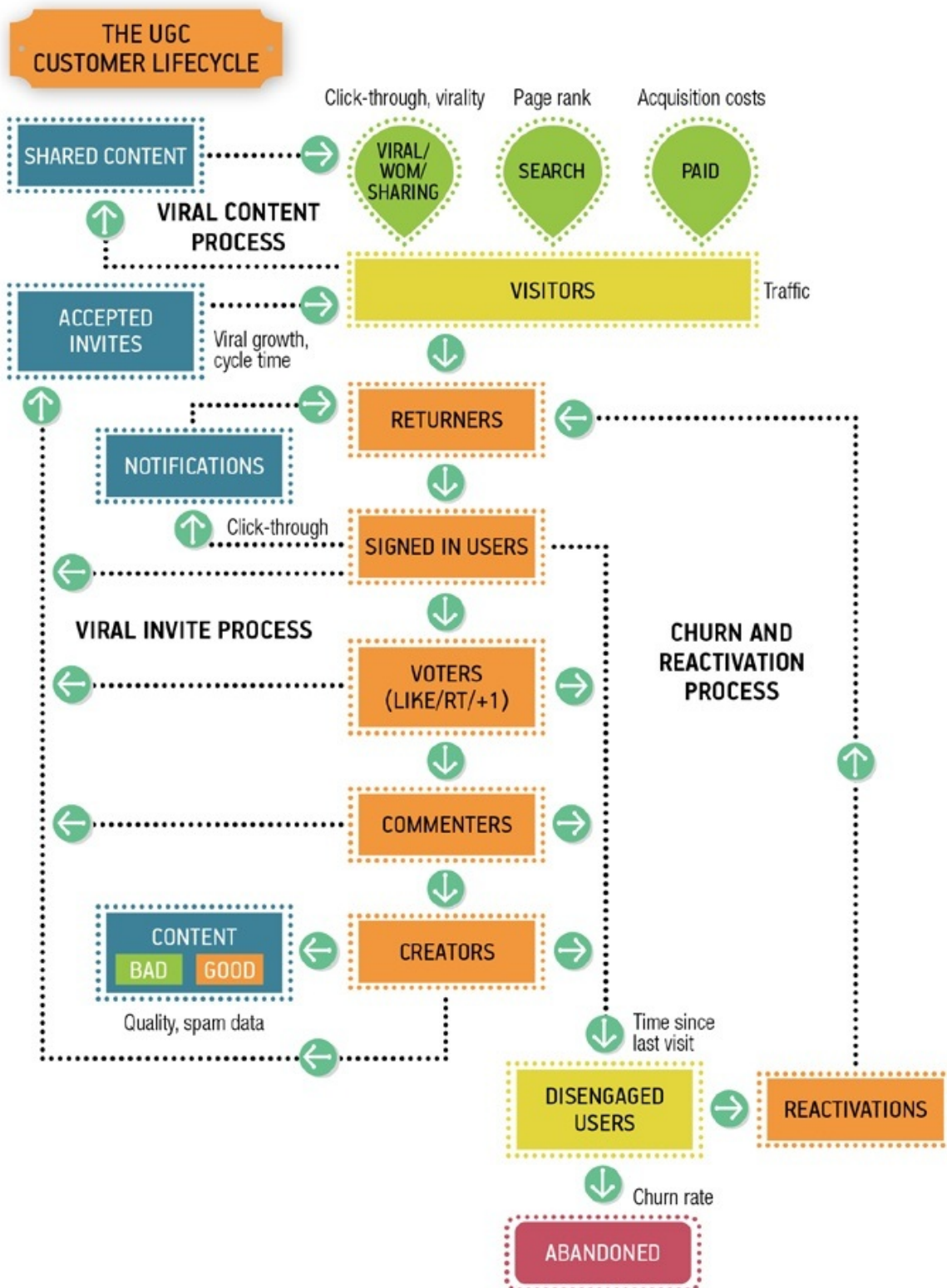


Figure 12-4. UGC is all about turning visitors into creators

Wrinkles: Passive Content Creation

Just as notifications happen in the background but are in many ways the new foreground interface, so too does content creation often happen stealthily. Google has been able to pack its social network, Google+, with information and updates across its user base simply by enabling background features like Latitude and image uploads, and by linking to external sites based on your profile.

As more and more mobile devices become sensors that track our health, our location, our purchases, and our habits, we'll see a split into active content generation (sharing a link, writing a post) and passive content generation (automatically populating a timeline with our actions; helping the system learn from our clickstream). This shift gives a huge advantage to those who make the tools for collecting data—mobile device makers, payment companies, and so on.

Consider three changes on the horizon: ambient checkins, in which your smart device registers changes in location and shares them; digital wallets designed to store loyalty, ticket, and membership data; and near-field communications technology that make it possible to share information or pay by bumping your device against something. These three technologies alone will provide a treasure trove of passive data that, given the right permissions, can populate someone's timeline in detailed ways that might pass for user-generated content, even when they're happening in the background.

While this doesn't change the UGC world today, it'll gradually cloud the simple sharing measurements we have at the moment and introduce a lot more noise—is a user engaged, or did he simply forget to turn off some kind of passive engagement? Are certain kinds of passive sharing better for the business? If so, what can we do to encourage or reward them?

Key Takeaways

- Visitor engagement is everything in UGC. You track visitors' involvement in an "engagement funnel."
- Many users will lurk, some will contribute lightly, and others will become dedicated content creators. This 80/20 split exists throughout the activities

you want your users to accomplish.

- To keep users coming back and engaged, you'll need to notify them of activity through email and other forms of "interruption."
- Fraud prevention is a significant amount of work for a UGC site.

The UGC business might focus on user contribution above all else, but it still pays its bills with advertising most of the time. If you want to learn more about advertising and the media business, head back to **Chapter 11**. If you want to get straight to the stages of a startup and how they affect metrics, jump to **Chapter 14**.

[43] Altimeter Group's Charlene Li refers to this as an *engagement pyramid*.

[44] It may also be because the login process doesn't demand an email confirmation—meaning users can be anonymous.

[45] Earlier we warned that the number of unique visitors was a vanity metric, but that's when it's applied to site growth. As a measure of the value of an individual piece of content, it's a useful rating.

[46] See **Circle of Moms Explores Its Way to Success** in **Chapter 2**.

[47] <http://www.mediapost.com/publications/article/181944/quick-whats-the-largest-digital-social-media-pla.html>

[48] http://www.avc.com/a_vc/2011/03/mobile-notifications.html