So, / if you're in the audience today, / or maybe you're watching this talk in some other time / or place, // you are a participant in the digital rights ecosystem. // Whether you're an artist, / a technologist, / a lawyer / or a fan, // the handling of copyright directly impacts your life. // Rights management is no longer simply a question of ownership, // it's a complex web of relationships / and a critical part of our cultural landscape. // YouTube cares deeply about the rights of content owners, // but / in order to give them choices about what they can do with copies, / mashups / and more, // we need to first identify / when copyrighted material is uploaded to our site. //

Let's look at a specific video / so you can see how it works. // Two years ago, // recording artist Chris Brown released the official video of his single "Forever." // A fan saw it on TV, // recorded it with her camera phone, // and uploaded it to YouTube. // Because / Sony Music had registered Chris Brown's video in our Content ID system, // within seconds of attempting to upload the video, // the copy was detected, // giving Sony the choice of what to do next. //

But / how do we know that / the user's video was a copy? // Well, // it starts with content owners delivering assets into our database, // along with a usage policy / that tells us what to do / when we find a match. // We compare each upload against all of the reference files in our database. // This heat map is going to show you / how the brain of the system works. // Here we can see the original reference file / being compared to the user generated content. // The system compares every moment of one to the other to see if there's a match. // This means that // we can identify a match / even if the copy used is / just a portion of the original file, / plays it in slow motion / and has degraded audio / and video quality. // And we do this every time / that a video is uploaded to YouTube. // And that's over 20 hours of video every minute. // When we find a match, // we apply the policy / that the rights owner has set down. //

And the scale / and the speed of this system / is truly breathtaking.// We're not just talking about a few videos, // we're talking about over 100 years of video every day, // between new uploads / and the legacy scans // we regularly do across all of the content on the site. // When we compare those hundred years of video, // we're comparing it against millions of reference files in our database. // It would be like 36,000 people / staring at 36,000 monitors each and every day, // without so much as a coffee break. //

Now, // what do we do when we find a match? // Well,// most rights owners, // instead of blocking, // will allow the copy to be published. // And then they benefit through the exposure, // advertising / and linked sales. // Remember Chris Brown's video "Forever"? // Well, // it had its day in the sun / and then it dropped off the charts, // and that looked like the end of the story, // but / sometime last year, // a young couple got married. // This is their wedding video. // You may have seen it. //

What's amazing about this is, // if the processional of the wedding / was this much fun, // can you imagine / how much fun the reception must have been? // I mean, // who are these people? // I totally want to go to that wedding. //

So / their little wedding video went on / to get over 40 million views. // And instead of Sony blocking, // they allowed the upload to occur. // And they put advertising against it / and linked from it to iTunes. // And the song, // 18 months old, // went back to number four on the iTunes charts. // So / Sony is generating revenue from both of these. // And Jill / and Kevin, // the happy couple, // they came back from their honeymoon / and found that / their video had gone crazy viral. // And they've ended up on a bunch of talk shows, // and they've used it as an opportunity to make a difference. // The video's inspired over 26,000 dollars in donations to end domestic violence. // The "JK Wedding Dance" / became so popular that / NBC parodied it on the season finale of "// The Office, // " which just goes to show, // it's truly an ecosystem of culture. // Because / it's not just amateurs borrowing from big studios, // but / sometimes big studios borrowing back.

By empowering choice, // we can create a culture of opportunity. // And all it took to change things around / was to allow for choice through rights identification. // So / why has no one ever solved this problem before? // It's because / it's a big problem, // and it's complicated / and messy. // It's not uncommon for a single video / to have multiple rights owners. // There's musical labels. // There's multiple music publishers. // And each of these can vary by country. // There's lots of cases / where we have more than one work mashed together.// So/ we have to manage many claims to the same video. //

YouTube's Content ID system addresses all of these cases. // But / the system only works through the participation of rights owners. // If you have content / that others are uploading to YouTube, // you should register in the Content ID system, // and then / you'll have the choice about / how your content is used. // And think carefully about the policies / that you attach to that content. // By simply blocking all reuse, // you'll miss out on new art forms, / new audiences, / new distribution channels / and new revenue streams. //

But / it's not just about dollars / and impressions.// Just look at all the joy / that was spread through progressive rights management / and new technology. // And I think / we can all agree that / joy is definitely an idea worth spreading. //