## Search Off the Record - 33rd episode

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[00:00:10] Gary Illyes: [00:00:10] Hello and welcome to another episode of <i>Search Off the Record</i>, a podcast coming to you from the Google Search Team, discussing all things search and having some fun along the way.

[00:00:20] My name is Gary Illyes, and I'm joined today by Lizzi Sassman from the Search Relations team, of which I'm also part of.

[00:00:28] Lizzi Sassman: [00:00:28] Hey, happy to be here.

[00:00:29] Gary Illyes: [00:00:29] And today, we are also joined by Danielle Marshak, who's one of the product managers on the Search team focusing on video. Hi, Danielle.

[00:00:38] **Danielle Marshak:** [00:00:38] Hey, great to be here. Super excited to be doing my first podcast ever as a big podcast listener. This is very exciting for me and happy to chat about videos.

[00:00:48] Gary Illyes: [00:00:48] Wait, this is your first...

[00:00:49] Danielle Marshak: [00:00:49] This is my first time ever being out of podcast and it's really cool. I'm excited.

[00:00:54] Gary Illyes: [00:00:54] Well, we are also excited to have you here.

[00:00:56] I'm particularly excited about videos because I have a long history of watching videos, specifically cat videos, because they tend to be funny for some reason.

[00:01:05] And I remember when I was a kid, for example, then this was pre-YouTube time. I spent my internet allowance on basically, downloading cat videos and that was very, very exciting for me.

[00:01:18] Danielle Marshak: [00:01:18] The internet is all about cats as they say.

[00:01:21] Wasn't there a machine learning model that just discovered cats organically just by crawling the internet. I feel like I read that somewhere.

[00:01:27] Gary Illyes: [00:01:27] What? What? What?

[00:01:28] **Danielle Marshak:** [00:01:28] It's like they found a bunch of images and it generated a cat, something along those lines. I don't know the details. But something that proves that the majority of the internet is indeed cats,

[00:01:38] Gary Illyes: [00:01:38] That is amazing. We should verify that.

[00:01:40] Danielle Marshak: [00:01:40] Yes, fact check this, I guess.

[00:01:42] **Gary Illyes:** [00:01:42] I never heard that before. That's very surprising to me. I would have expected that there are also other kinds of videos that are very prominent on the Internet and it's not just cats, but...

[00:01:51] Danielle Marshak: [00:01:51] Wait, did you say videos on the Internet or that the Internet at large? Like any piece of content is the majority cats, about cats, text content, too?

[00:02:00] **Lizzi Sassman:**[00:02:00] I think this might have been images specifically, so not exactly the topic of this podcast.

[00:02:04] But, you know, if people like pictures of cats, the only thing better than pictures of cats should be videos of cats. I would assume.

[00:02:10] **Gary Illyes:** [00:02:10] Interesting. I can totally see how images would play into that bucket, because I can has cheeseburger, for example, that's been around for a very, very long time and probably it set a trend that involved cats and images,

[00:02:22] but with a wake of more processing power, I imagine and phones and such probably, we also saw an

uptick in cat videos on the Internet.

[00:02:30] So maybe it's even videos that are prominent or them are the most prominent nowadays on the Internet.

[00:02:35] What was your first encounter with videos if you remember?

[00:02:39] Danielle Marshak: [00:02:39] So, I don't know if this was my first ever encountered videos, but there's an early Internet video that I remember fondly.

[00:02:45] And I'm curious, if you guys remember this one too. Did you guys ever watch <i>Muffin Films</i>?

[00:02:49] Lizzi Sassman:[00:02:49] What is the muffin... like (laughter)

[00:02:52] **Danielle Marshak:** [00:02:52] I might not sound like a crazy person, but I actually checked in this website, still exists. It's called <i>muffinfilms.com</i>.

[00:02:59] And now I think the videos are on YouTube, but this website was originally created before YouTube.

[00:03:07] And yeah, some animator created a bunch of videos about muffins, and there was a finale video called Muffinale.

[00:03:15] [laughter]

[00:03:17] Gary Illyes: [00:03:17] How do you pivot from here?

[00:03:19] **Danielle Marshak:** [00:03:19] We were saying before how the only thing better than a picture of a cat is a video of a cat.

[00:03:24] And I think one of the reasons why videos are becoming more and more popular online is that they really can convey so much more emotion, movement...

[00:03:34] Just information that you couldn't get from text or images alone.

[00:03:38] When you think about, whether it's a music track that goes with something and helps you connect more

deeply with it, or just the fact that there's certain things where movement really conveys something beyond just a static image.

[00:03:50] So it's a very rich content format, and I think that's why we see a lot of people creating more videos about all kinds of topics, not just entertaining topics.

[00:03:59] But at Google, we really think about organizing the world's information, and videos can be really informational for all those reasons too, so that's a lot of what we think about on the video search team.

[00:04:11] **Gary Illyes:** [00:04:11] Yeah, I use videos a lot for cooking or actually seeing how people do specific things in cooking. And for that I think they are amazing, because with images, very often, you cannot convey the same motions.

[00:04:23] For example, you could draw lines and images, and then that might help you understand how you have to stir something,

[00:04:31] but with a video, you can actually see the speed, you can see the motion exactly how it is, so I definitely understand why people prefer, in some cases, videos over images or text.

[00:04:41] Do you remember the first time you actually went to a search engine, not necessarily Google, and you searched for a video? It was very different from the experience.

[00:04:50] I'm thinking about how I'm finding these cooking videos. And my father was a chef, and back in the day, we were hunting for new recipes or new methods or whatnot.

[00:04:59] And finding the videos was challenging, let's say.

[00:05:02] And this was pre big video sites like Dailymotion and the YouTube and so on. It was basically the wild wild west for videos.

[00:05:12] And then search engines try to categorize them and try to surface them, but very often they did a very weird job,

[00:05:19] as in you search for how to stir hollandaise sauce and then you would end up with a cat video because...

[00:05:27] Danielle Marshak: [00:05:27] The Internet is about cats.

[00:05:29] Gary Illyes: [00:05:29] ... because the Internet is about cats essentially, yes.

[00:05:31] Do you have a similar experience that prompted you to become video person, basically someone who tries to fix the videos for the Internet?

[00:05:40] **Lizzi Sassman:** [00:05:40] That's an interesting question. Was it video or search first that grasped your interest or brought you to Google even?

[00:05:47] Danielle Marshak: [00:05:47] Great question. To be honest, the way Google does interviews for a lot of roles is you kind of get the job and then you pick the team.

[00:05:57] And what actually drew me to the Search team initially was the people and the fact that I felt like I could learn a ton from them.

[00:06:04] And so that has definitely held true. I've been on the team for about three and a half years.

[00:06:09] And it's so cool working with people who have worked on Search for way longer than that and being able to learn from them and how they work.

[00:06:15] but when I was joining the video team, specifically I remember I had seen certain video features that seemed really interesting.

[00:06:21] Like you could search and Google would actually pull out a particular moment within a video that was most helpful.

[00:06:26] And that's something that we launched an initial version for that, I think before I even joined.

[00:06:31] But since then, we've built been building more features along those lines to help make it even easier to find not just the right video, but the right part within a video. And I remember seeing that and thinking that was pretty cool.

[00:06:43] And when I joined the team, I kind of had a sense of if that's the type of thing we can do, how can we do more of that? How can we make that better for users?

[00:06:51] It felt like just the tip of the iceberg and I think it really is. Even three and a half years since I've joined, we've done a lot, but there's still so much more to do, so definitely a really exciting space.

[00:07:02] **Gary Illyes:** [00:07:02] You touched upon an interesting thing which is kind of understanding, because if you have segments, basically this segment is about certain topic and then the next segment is about a different topic,

[00:07:12] how do search engines or Google understand these things like the segments? Or do we even understand more about what's in the video?

[00:07:23] **Danielle Marshak:** [00:07:23] Yeah, so there's a few different ways we can understand what's inside a video.

[00:07:27] One way is to try to extract text from the video, since historically, Google has been pretty good at understanding text.

[00:07:35] And so we can extract text in a couple ways. We can use the audio from the video file to understand what words are being spoken, and then try to slice up those words into meaningful parts or chunks.

[00:07:47] Another way we can extract text is using the characters in the video, optical character recognition.

[00:07:53] And so for example there might be a heading in one part of a video saying, "Now we're going to talk about cats,"

[00:07:58] and there might be a heading in another part of a video that says, "Now we're going to talk about how Google search finds videos of cats." And so we could extract out those text headings to understand important moments in a video as well.

[00:08:11] But then the other thing is that you know videos are not just speech and text on images. If that's all, they wouldn't be quite so powerful and useful like we were talking about.

[00:08:20] Videos also have a lot of visual information, right?

[00:08:23] So can you see particular types of objects or animals or motion in a video? And that's an even harder problem.

[00:08:31] And something that we've been working on as well is using those visual signals in the video to understand what's happening or identify key moments from that.

[00:08:41] Lizzi Sassman:[00:08:41] I do remember a machine learning model thing that was like, "Is it a dog or a donut?"

[00:08:46] And maybe this is going away from the cat theme, but is that something that you notice is getting better differentiating between objects like that? Like a curled up dog and a picture of a donut in a video to know that what it is?

[00:09:00] Danielle Marshak: [00:09:00] Yeah, I've definitely also seen that. I mean it's pretty funny. I mean that's that's exactly the type of thing that our technology needs to keep getting better at,

[00:09:09] because as humans, even as humans, some of those pictures are a little hard to distinguish, so we can't necessarily expect computers to do it automatically, but yes, as that the type of technology improves what's really cool

[00:09:23] I would say working at Google is you have different teams working on different aspects of these problems,

[00:09:27] so there might be a research team that's really focused on improving visual perception. And then, we could use those techniques to apply that visual perception improvement to videos. And so that's kind of how we work as a team.

[00:09:40] You know the video team isn't necessarily improving all of these things ourselves. It's a big and hard problem, but we get to collaborate and leverage different technologies to make our products better.

[00:09:49] Gary Illyes: [00:09:49] Yeah, I remember a few years ago, I was the conference in Berlin. I think the conference was called CPIC.

[00:09:55] And there we were presenting something about images to image publishers. And then one of the hot topic was image understanding or how are we using machine learning to understand the images.

[00:10:08] And then I remember that we extracted for them using the model that we used in production, just a few examples to to give them an idea about how little we can understand about image.

[00:10:18] Again, this was like four years ago, and it was like if the image had an apple, we could tell that's an apple. If it had the Eiffel Tower, then we could tell that that's the Eiffel Tower.

[00:10:27] The model could tell that's the Eiffel Tower,

[00:10:29] but if it was a group of people and in the middle, there was Obama standing, it just said that it's a group of people, it would not recognize that the former president of the United States is there, which is kind of weird to me,

[00:10:44] because I would have expected that such a prominent entity and we would understand it,

[00:10:49] but it was also shocking for the publishers, and it just reinforced that they need to provide more data textual data, so we can, we as in search engines, can understand the images better.

[00:11:01] Can we understand more from the different frames?

[00:11:04] I'm not trying to say that understanding images is the same as videos,

[00:11:07] because obviously it's not you have 20 something frames per second in a video, and you have one frame in an image essentially,

[00:11:15] but is our understanding stills so limited that we need extra information coming in form of text, for

example or structured it or whatever, or people can just abandon that all together and my dream just came true .

[00:11:29] **Danielle Marshak:** [00:11:29] Definitely for all the listeners, don't abandon structure data just yet. We love structured data, because as we were talking about, even though we've come so far, we're still at the tip of the iceberg, in terms of being able to really deeply understand videos.

[00:11:46] So even as we start to use the video content more, we also really rely on structured data and text signals from the page as well

[00:11:54] to make sure we understand what the video is about, what types of queries it could be useful for, etc. so it's really useful to have that additional information.

[00:12:03] And another key use of structured data is for us to actually get the video content itself.

[00:12:10] So when we visit a page, we see what we think might be the video content file,

[00:12:15] but if a site owner actually tells us, "Hey, this is my content URL in structured data, and ideally that content URL is something that Google can actually access, that also helps us do the video understanding as well.

[00:12:29] So it's kind of we get both the structured data you can add text and make sure we have a good title for the video and a description and that can help us understand what it's about, but you can also use it to make sure we actually get the video content.

[00:12:42] And that's a common pitfall. We see a lot of various reasons why we might be actually missing that video content, and then we don't have that additional information.

[00:12:51] And ideally, we want to be able to show videos for all of the queries that could be relevant for which might be something mentioned the title,

[00:12:57] but it might be something that's mentioned halfway through the video, and that could be really useful to someone if we know that it's there.

[00:13:04] **Gary Illyes:** [00:13:04] Yeah, one of the things that was very prominent at that conference was that people, I mean publishers, were blocking images for various reasons.

[00:13:13] And then we couldn't access the images, and then they were mad that we wouldn't index their images, so they don't get traffic from search.

[00:13:21] I've been working on Search for 11 years, and I was working as a webmaster before, so for me, it's very weird that people wouldn't allow Google bot or other crawlers to access the images, but it still happens.

[00:13:41] And when we can't access those resources, then indexing can suffer quite a bit.

[00:13:46] And the other thing that was really funny to me was that some developer decided that the image URL should change on every page load, and that was some caching or cache busting mechanism or something like that.

[00:14:00] And they were asking us there session why are we not indexing those images?

[00:14:05] It's like, "Well, we go there, we see the image URL. And then we go back to index it, and then when we fetch it again, it's not there anymore.

[00:14:12] So, kind of explains why we don't index the image or don't keep it in the index.

[00:14:18] Do you see the same problems with videos as well where publishers would block?

[00:14:22] Danielle Marshak: [00:14:22] Yeah, we definitely do.

[00:14:23] I think it's pretty common that if you own a video, you created a video, you don't want that video to be potentially pirated or copied by people you who don't have the rights to do that.

[00:14:35] And so we see a lot of content protections which make a lot of sense to prevent bad actors from getting a hold of your video,

[00:14:42] but the challenge is that if these videos are kind of locked down in that way, if you see these changing URLs, etc., then Google also can't access the content file.

[00:14:52] And so, then again, as we were saying, yes, we use text, but we also are using content as well. And if we can't access that, that's kind of just a missing signal there.

[00:15:01] So I've actually worked with Lizzi a bunch to update our dev docs and clarify some of our best practices along these lines.

[00:15:09] And you know, we want to make sure that there is easy ways to get your content files in the hands of people. You want them to it and not in the hands of people you don't.

[00:15:18] So there's probably more detail than we want to go into on this podcast.

[00:15:23] But Lizzi, any thoughts on the dev doc updates or best practices we've been working on?

[00:15:30] **Lizzi Sassman:** [00:15:30] I was going to ask is there a way that we could have both?

[00:15:33] So you're mentioning that there's bad actors and we have these concerns around, not wanting my content to be stolen, but also wanting Google to discover it.

[00:15:42] Is there a win-win solution for publishers?

[00:15:46] **Danielle Marshak:** [00:15:46] Yeah, so there is what we call reverse DNS lookup, or just straight-up DNS lookup,

[00:15:52] because I think we've recently published our IP addresses, that right, Gary? to make it easier to actually tell if something is Google. And you don't have to do quite as many reverse and forward back and forth checks.

[00:16:03] And so, yeah, you can actually see if it's Google or another trusted bot .

[00:16:07] Obviously, Google isn't the only Search engine or the only crawler that you might want to access your content, but you can see if it's Google. And if you do want Google to access your content, you can allow it.

[00:16:17] And so hopefully, that makes it a bit easier to control who has your content and who doesn't. And let trusted actors understand it while keeping it out of the hands of bad actors.

[00:16:28] Gary. I don't know if you had any other thoughts to add on that one?

[00:16:31] **Gary Illyes**: [00:16:31] Yeah, recently we did publish our IP addresses and I keep them up-to-date, basically going into our own internal database and exporting them as needed.

[00:16:42] I don't think we had an addition to them. Turns out that our IP addresses don't change that often, and it was actually really nice to see that other search engines followed along.

[00:16:51] And they also published in the same format, their IP addresses, and publish them. And I imagine that that's really good for video publishers for the reasons that you mentioned.

[00:17:02] Another thing that I'm very excited about on the Internet or too excited, perhaps, is short-form videos where I spend the way too much time nowadays,

[00:17:14] because I'm trying to figure out how could we, as in the Search Relations team, fit into the short videos format.

[00:17:22] Like, could we publish their our documentation in some way? Did you not get the memo?

[00:17:28] Lizzi Sassman: [00:17:28] Apparently, I'm getting it now live presently [laughter].

[00:17:32] **Gary Illyes:** [00:17:32] Like, for example, could we have some short videos, like three-minute videos or even shorter videos where we talked about?

[00:17:39] Some thing like the site colon query operator, or the IP addresses that we publish, or whatever that we can fit in the three minutes.

[00:17:48] And it seems that it's also extremely popular on the Internet among people. I have no idea if it's a segment of people or it's the general Internet population that's very excited about it.

[00:18:02] I'm assuming it's the younger population, but that's just a gross assumption.

[00:18:06] But I very curious about how Google is thinking about short videos if we are thinking about short videos at all.

[00:18:14] **Lizzi Sassman:** [00:18:14] You mentioned a good point to what is the difference; what's the cutoff between he had a short video and regular video?

[00:18:21] Is it the length of time or is it the format itself?

[00:18:24] Because I also see that it's like a vertical versus landscape switch there. And how do we differentiate between what is the short form video versus full-length air quotes?

[00:18:37] Danielle Marshak: [00:18:37] Yeah, great question. So, yeah, we definitely are seeing that short form video is really growing, not just as a form of entertainment, but as you suggested, also can be a great way to convey information.

[00:18:48] Everybody loves things that are concise and visual and engaging.

[00:18:52] And when we talk about short videos, typically we're thinking about this sort of new format, that's cropped up, usually under a minute, although sometimes it could be longer and typically really mobile oriented.

[00:19:03] So we're looking at vertical aspect ratio as opposed to, maybe something that's meant to be watched on a laptop.

[00:19:09] And this format, it's really cool because as I mentioned, it is very concise. You can get a lot of information in a short period of time, and you can also get a loot of different views and perspectives,

[00:19:19] so you could, for example, see what five different people think about the best way to make banana bread, all in under five minutes.

[00:19:27] Or you could get five different people's perspectives on a product they bought and whether it's good or how they use it, all in under five minutes.

[00:19:35] And so getting that diversity of ideas or perspectives is something that's much easier when each piece of content is really short.

[00:19:43] And, again, as we were talking earlier about the benefits of videos, generally, that also applies to short videos. You can see movement. You can see, not quite 3D, but you know something can be turned around.

[00:19:53] You can look at it more closely in a way that you wouldn't necessarily look at it in an image.

[00:19:57] So we think this kind of content could be useful for a lot of different types of search queries, and we've been experimenting with how to show it to users more often.

[00:20:07] Lizzi Sassman: [00:20:07] Do you have any examples?

[00:20:09] **Danielle Marshak:** [00:20:09] Yeah, well, I mentioned banana bread being one. So let's say, again, you're searching for some new ideas to make banana bread.

[00:20:17] And right now, you might see traditional recipes, you might see longer videos, but you could also see short videos, which could just give you a different style or perspective.

[00:20:25] And people's preferences are different. Some people might prefer to read; some people might prefer a longer video; some people might prefer short videos.

[00:20:32] And so we want to offer a lot of different options to get that type of information, in the format that is most useful for you. So that's one example.

[00:20:40] Another example, we were talking about shopping as a use case.

[00:20:44] So let's say you're trying to decide whether you want to buy a Vitamix, and you want to get a sense for how big is it, really. How fast does it really pulverizing those blueberries.

[00:20:56] You know, seeing a video, for that might make it a lot easier to understand if you want to buy it. Or you could even see different people talking about how they use it.

[00:21:03] And so, that's something that a longer video could also do, but a shorter concise video might be even more helpful.

[00:21:09] Maybe you just need that quick look at how the lenders working, or that quick take from one person on how they've used it. And that could be a nice way to understand whether it's worth buying.

[00:21:20] Gary Illyes: [00:21:20] Yeah, in my brain, this is similar to recipe sites, where you have to reap how the recipe came to be. And basically, we are going back to Adam and Eve and from there somehow, we've reached the recipe at one point versus you just go to a site and you have the recipe in your face. And you can start cooking without reading all the stuff.

[00:21:39] Yeah, I really like short-form videos and I see lots of instructional videos on certain sites. And I really think that at one point, we might want to try it for education purposes. Like for research, talks.

[00:21:55] I don't know if we are there yet, but eventually, especially if I see that the search engines pick it up, and they can present it in some way, then maybe we should push for it.

[00:22:05] What do you think, Lizzi?

[00:22:06] **Lizzi Sassman:** [00:22:06] Like if we started, what would be your requirement to see that when we're there yet?

[00:22:11] What is the bar of there yet that we would want to experiment with it where we start seeing instructional things showing up? Or would we want to be ahead of the curve and try it now?

[00:22:20] **Gary Illyes:** [00:22:20] For Search Docs, I don't know if we want to be ahead of the curve. Basically, we want people to consume their content in a way that they are used to. I don't know if short-form videos is something that they expect.

[00:22:35] **Lizzi Sassman:** [00:22:35] We can surprise them.

[00:22:37] **Danielle Marshak:** [00:22:37] I've also seen short videos that are on topics that you wouldn't even expect around like how to write a resume, for example, or interview tips.

[00:22:45] So feel like you can make a short video about interview tips. You could probably make a short video about SEO tips, but obviously don't want to create extra work for you guys.

[00:22:55] **Lizzi Sassman:** [00:22:55] A lot of them like, "I've seen question- based," so it's like a user submitted question or something, and then you're like quickly and under a minute answering whatever the thing was.

[00:23:04] But I guess like how would people then discover the docks next to it? Or how would they be linked with the informational page that is with it?

[00:23:13] Because right now with videos, we can embed them on a page. Would you do that same thing with the short form video?

[00:23:19] Also, our documentation is primarily desktop users, whereas we've been talking about short form being a mobile focused thing. How would that gel together?

[00:23:31] **Gary Illyes:** [00:23:31] Yeah, I don't know why. I just feel that if we have lots of people who are on short-form videos, and we know that there are instructional videos out there, then at one point, we might want to try it also.

[00:23:44] My go-to example is Physics Girl, the content creator who is talking about quantum mechanics or quantum in general and astrophysics, and she can deliver great content in under three minutes.

[00:23:56] So, If she can talk about quantum mechanics under three minutes and the videos are highly interacted with, then why wouldn't our content? I mean, maybe it's less interesting, I guess.

[00:24:08] **Lizzi Sassman:** [00:24:08] So I think we could do it. I mean, Daniel, you've done <i>Lightning Talks</i> on our Channel as well. Would you be--with this be something that you would be interested in doing a short form video about short-form videos where that two matter?

[00:24:21] **Danielle Marshak:** [00:24:21] I feel like if anyone's going to do it, it's probably going to be neat, right? If I'm the video person, I got a pioneer Dev docs in short video format.

[00:24:30] I think it actually, I think it could work really well, right? Just you share some short tips. And obviously, you might want to link out to more detailed information if people want that, but could be fun to experiment with.

[00:24:41] Lizzi Sassman: [00:24:41] I mean I can think of a question right now, like the top one.

[00:24:43] I don't know why it keeps getting submitted, but content URL versus embed URL. Why are there two URLs? In which video do I put where? And that would be something that you could answer probably pretty succinctly.

[00:24:54] Danielle Marshak: [00:24:54] Yep, Yeah, that's a great one. Yeah, I feel like now I'm on the spot. Can I answer it right now in under 15 seconds?

[00:25:02] All right, content URL, if you have the content URL, you should provide that in your structure data. If you don't have the content URL, for example, if you're using third-party embed service where you don't have access to that file, as a backup, you could use the embed URL and that can sometimes work, too.

[00:25:17] But when in doubt, if you have both, share the content URL. That was probably under 15 seconds, right? That could have been a video.

[00:25:23] **Lizzi Sassman:** [00:25:23] Pretty sure. We should have been recording this with the selfie mode. [laughter]

[00:25:27] **Danielle Marshak:** [00:25:27] One other question that sometimes comes up is when we talk about short form video or videos generally, how do we discover this content or is this different from the ways that we discover content on the web generally?

[00:25:39] And, you know, one thing that's kind of cool is anything that's at URL really is something that Google can crawl and can surface.

[00:25:46] And so, you know, short-form videos are often viewed in apps, but as long as they have a URL attached to them, it's something that Google can find and can surface in search results.

[00:25:55] So, I thought I would share that tidbit as well since it's a common question I've heard and may be helpful if anyone's curious.

[00:26:01] **Gary Illyes:** [00:26:01] Yeah, I was very surprised when I shared some TikTok video with with Lizzi yesterday or a few days ago or something.

[00:26:10] Lizzi Sassman: [00:26:10] It's every day. It could be a daily activity.

[00:26:13] Gary Illyes: [00:26:13] Too much detail, too much detail. You can actually open it on the laptop and you will end up on a web page and you can actually watch it on the web page. You don't have to have the TikTok app for watching the video.

[00:26:26] So I imagine that if they allow crawling--I haven't checked, then we can probably index those videos as well.

[00:26:32] **Danielle Marshak:** [00:26:32] Yeah, a lot of short video apps in addition to the app have great web experiences, both mobile web experiences or desktop experiences. And yeah, if it's out of URL and it's crawlable, then it could show up in Search so.

[00:26:48] **Gary Illyes:** [00:26:48] And I have one final question. What is the project that you are most excited about presently? And please don't say recording videos for us, because everyone knows that already.

[00:26:59] **Danielle Marshak:** [00:26:59] Absolutely, yeah. This is a fun part of the job. But yeah, I would say there's probably two kinds of categories of things we're working on that are really exciting.

[00:27:08] We've been talking a lot in this podcast about how we understand videos, and how we could use that understanding to build features that are more useful for people.

[00:27:16] So for example, today, <i>Key Moments</i> let you jump to a particular moment within a video. There's a whole world of additional things that we can do to use that video understanding to help people find information more efficiently.

[00:27:29] So that's an area that is super exciting, and there's so much more to do.

[00:27:33] And then the other thing that we think a lot about is, how do we make sure that videos are a useful part of the search experience as a whole?

[00:27:41] So one of the things that so great about Google is you can come to one place and you can search for a topic and you don't have to necessarily think, "Oh, I really want a video or I really want a text article."

[00:27:51] You should be able to see whatever is most relevant, hopefully, laid out in a way that seamless and useful.

[00:27:58] And We're thinking about, as always, how we can make sure that new videos are part of that whole search experience, and that users can kind of come to Search and get whatever they're looking for in one place.

[00:28:10] So, yeah, that's another area. That's maybe a little vague and high-level, but just a thing that we're always working on and thinking about is having that seamless experience across formats. As cool as videos are we don't want to go into a corner ourselves and work alone. We want to make sure that Google Search as the whole is really helpful.

[00:28:29] \$\mathcal{I}\$ (music) \$\mathcal{I}\$

[00:28:32] Gary Illyes: [00:28:32] And that's it for this episode. Thank you, Daniel. We've been having fun with these podcast episodes. I hope you, the listener have found them both entertaining and insightful, too.

[00:28:42] Feel free to drop us a note on Twitter <i>@googlesearchc</i> or chat with us at one of the next virtual events we go to if you have any thoughts.

[00:28:50] And of course, don't forget to like and subscribe and link to us, but with a <i>nofollow</i>. Thank you and goodbye.

[00:28:58] \$\infty\$ [outro music] \$\infty\$