IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION

VIRTUAL CREATIVE ARTISTS, LLC,

Plaintiff,

v.

BUMBLE TRADING LLC,

Defendant.

C.A. No. 6:23-cv-675

JURY TRIAL DEMANDED

PATENT CASE

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Virtual Creative Artists, LLC files this Original Complaint for Patent Infringement against Bumble Trading LLC and would respectfully show the Court as follows:

I. THE PARTIES

- 1. Plaintiff Virtual Creative Artists, LLC ("VCA" or "Plaintiff") is a Delaware limited liability company, having business address at 338 Gracious Way, Henderson, NV 89011.
- 2. On information and belief, Defendant Bumble Trading LLC ("Bumble" or "Defendant") is a corporation organized and existing under the laws of Delaware. Defendant has its principal place of business at 1105 W 41st St., Austin, TX 78756. Defendant has a registered agent at C T Corporation System, 1999 Bryan St. Suite 900, Dallas TX 75201.

II. JURISDICTION AND VENUE

- 3. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction of such action under 28 U.S.C. §§ 1331 and 1338(a).
- 4. On information and belief, Defendant is subject to this Court's specific and general personal jurisdiction, pursuant to due process and the Texas Long-Arm Statute, due at least to its

business in this forum, including at least a portion of the infringements alleged herein at 1105 W 41st St., Austin, TX 78756.

- 5. Without limitation, on information and belief, within this state, Defendant has used the patented inventions thereby committing, and continuing to commit, acts of patent infringement alleged herein. In addition, on information and belief, Defendant has derived revenues from its infringing acts occurring within Texas. Further, on information and belief, Defendant is subject to the Court's general jurisdiction, including from regularly doing or soliciting business, engaging in other persistent courses of conduct, and deriving substantial revenue from goods and services provided to persons or entities in Texas. Further, on information and belief, Defendant is subject to the Court's personal jurisdiction at least due to its sale of products and/or services within Texas. Defendant has committed such purposeful acts and/or transactions in Texas such that it reasonably should know and expect that it could be haled into this Court as a consequence of such activity.
- 6. Venue is proper in this district under 28 U.S.C. § 1400(b). On information and belief, Defendant has businesses in this district at 1105 W 41st St., Austin, TX 78756. On information and belief, from and within this District Defendant has committed at least a portion of the infringements at issue in this case.
- 7. For these reasons, personal jurisdiction exists and venue is proper in this District under 28 U.S.C. § 1400(b).

III. <u>COUNT I</u> (<u>PATENT INFRINGEMENT OF UNITED STATES PATENT NO. 9,501,480</u>)

- 8. Plaintiff incorporates the above paragraphs herein by reference.
- 9. On November 22, 2016, United States Patent No. 9,501,480 ("the '480 Patent") was duly and legally issued by the United States Patent and Trademark Office. The '480 Patent is titled "Revenue-Generating Electronic Multi-Media Exchange and Process of Operating Same."

2

A true and correct copy of the '480 Patent is attached hereto as Exhibit A and incorporated herein by reference.

- 10. VCA is the assignee of all right, title, and interest in the '480 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the '480 Patent. Accordingly, VCA possesses the exclusive right and standing to prosecute the present action for infringement of the '480 Patent by Defendant.
- 11. The invention relates to the field of creating and distributing media content, in particular, creating media content based upon submissions received on an electronic media exchange. At the time of the original invention in 1998, there was an Internet-centric problem that required a technical solution—how to develop a computer system that would allow remote contributors of electronic content to share and collaborate their content to develop new media content. The claimed invention, which predates modern crowdsourcing solutions, offers a unique, unconventional, and specially configured combination of "subsystems" in which to address the Internet-centric problem.
- 12. As set forth in the claims, the claimed invention has a collection of unconventional and particularly configured subsystems, including:
 - "an electronic media submissions server subsystem,"
 - "an electronic multimedia creator server subsystem,"
 - "an electronic release subsystem,"
 - "an electronic voting subsystem," and
 - their corresponding specialized databases.
- 13. Each of these subsystems are configured in a very specific (and not generic), unconventional and non-routine manner to offer the novel and non-obvious claimed invention. For example, claim 1 requires an "electronic media submissions database," which is a subsystem

3

that receives media submissions from Internet users. This is not a generic database but rather a scalable database that must be able to receive, store, and manage multiple petabytes of multimedia data received from users all over the world. This is one of the many specialized databased required in the claim. In fact, the specification discloses the use of a sophisticated database management system known in the art at the time that was capable of handling data at this level, Oracle7. This type of database management system cannot operate on a generic computing system but rather requires specialized hardware and software.

- 14. As another example, the claim requires a specifically configured "electronic media submission server subsystem." This subsystem is defined as specifically having:
 - "one or more data processing apparatus,"
 - "an electronic media submission database stored on a non-transitory medium,"
 and
 - "a submissions electronic interface."

The "submissions electronic interface" is further specifically "configured" [1] "to receive electronic media submissions from a plurality of submitters over a public network, and [2] store the electronic media submissions in the electronic media submission database." Further, "the electronic media submissions database" in this subsystem is further required to "store[] [1] data identifying the submitter and [2] data indicating content for each electronic media submission." Collectively, the level of detail included in this very particular, well-defined, and unconventional subsystem makes clear that the claims include substantially more than the alleged abstract idea or merely performing an alleged abstract idea on a computer.

15. Similarly, the claim also requires a separate specifically configured "an electronic multimedia creator server subsystem." The claim specifically defines how this second subsystem

interacts with other components including being "operatively coupled to the electronic media submissions server subsystem." The claim also specifically defines this subsystem as "having":

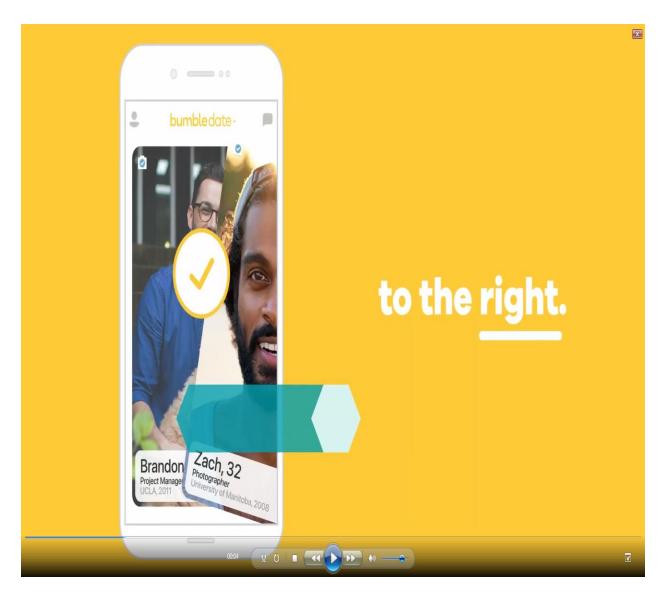
- "one or more data processing apparatus" and
- "an electronic creator multimedia database stored on a non-transitory medium."
- 16. This subsystem is also specifically "configured [1] to select and [2] retrieve a plurality of electronic media submissions from the electronic media submissions database using an electronic content filter located on the electronic multimedia creator server." The "filter" also includes a very specific algorithm of "being based at least in part on at least one of the one or more user attributes to develop multimedia content to be electronically available for viewing on user devices." Even more detail is provided by requiring "the identification of the submitter [be] maintained with each selected and retrieved submission within the multimedia content." Here again, collectively, the level of detail included in this very particular and well-defined and unconventional subsystem makes clear that the claims include substantially more than an alleged abstract idea or merely performing an alleged abstract idea on a computer.
- 17. The claim also includes "an electronic release subsystem," which is well defined and not conventional or routine. The claim defines how this subsystem is "operatively coupled to the electronic multimedia creator server subsystem." The claim also defines the components of this subsystem as having "one or more data processing apparatus" and being particularly "configured to make the multimedia content electronically available for viewing on one of more user devices." These details, collectively, also make this very particular and well-defined and unconventional subsystem substantially more than an abstract idea or performing an abstract idea on a computer.

- 18. The claim also requires "an electronic voting subsystem," which is well-defined, specific, and unconventional. This claimed subsystem has "one or more data processing apparatus" and is specifically "configured to enable a user to electronic vote for or electronically rate an electronically available multimedia content or an electronic media submission within a respective electronically available multimedia content."
- 19. Claim 1 is a specific and discrete implementation. For example, the claim requires an "electronic content filter" located at the server, remote from end users, and customizable based on user attributes. As another example, the "electronic voting subsystem" at the time of the invention was novel and inventive and added sufficient inventive contributions to avoid a risk of preempting creating and distributing media content. It is possible to create and distribute media content without ever having to include a "voting" subsystem on what components should be included in such media content. The detailed configuration "to enable a user to vote for or electronically rate an electronically available multimedia content or an electronic media submission within a respective electronically available multimedia content" has the level of particularity that avoids any risk of preemption.
- 20. Furthermore, the very particular and specifically configured "electronic media creator subsystem" not only provides a detailed and unique physical structure and interrelationship with other claimed components, but also includes a very specific configuration that is not conventional or routine. The claims make clear the interrelationship of the "electronic multimedia creator server subsystem" with respect to "the electronic media submission server subsystem" which must be "operatively coupled" thereto. The claims also provide detail on how the "electronic media creator subsystem" is "configured" "to select and retrieve a plurality of electronic media submissions from the electronic media submission database using an electronic

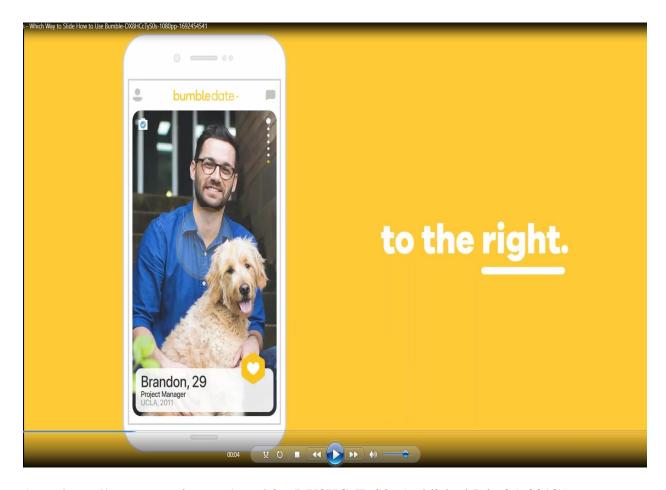
6

filter." They also provide detail on how the "electronic filter" is "based at least in part on at least one of the one or more user attributes" and specifies that "the identification of the submitter is maintained with each selected and retrieved submission within the multimedia content."

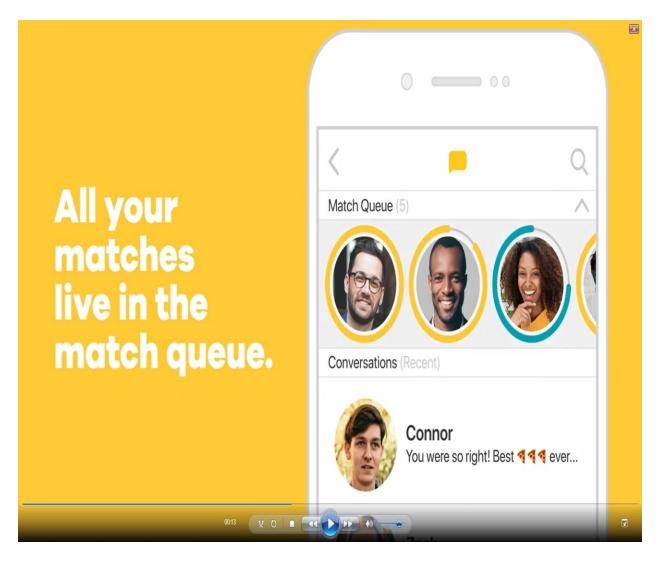
- 21. These arguments overcame a patent eligibility rejection under 35 U.S.C. §101 of the claim at issue during the prosecution of the '480 patent before the United States Patents and Trademark Office.
- 22. **Direct Infringement.** Upon information and belief, Defendant has been directly infringing claim 1 of the '480 Patent in Texas, and elsewhere in the United States, by employing a computer-based system using https://bumble.com/ ("Accused Instrumentality") (e.g., https://bumble.com/) uses a computer-based system for its Bumble app, website and platform, for example to enable the provision of personalized profile feeds that show users multimedia content including selected multimedia profiles of other users, for dating, business, and friendship purposes, based, inter alia, on user-selected preferences and filters, as well as based on algorithmic user scoring that is maintained as proprietary by Bumble Trading LLC users can mutually form "matches" through mutually selecting each other from the users' respective profile feeds, and can have conversations with those they "match" with. Bumble Trading LLC, during the relevant time period, took advantage of multiple cloud server providers jointly used for Bumble and its sister app Badoo, as discussed above, as well as scalability within its cloud server providers, employing separate server subsystems for all its meaningfully different functions, such as those indicated below. Bumble Trading LLC uses and has used during the relevant time period, numerous different networks, IP addresses, and providers for, inter alia, cloud hosting, content delivery networks (CDNs), and a variety of networks, thereby using separate server subsystems for all its meaningfully different functions, such as those indicated below.



(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



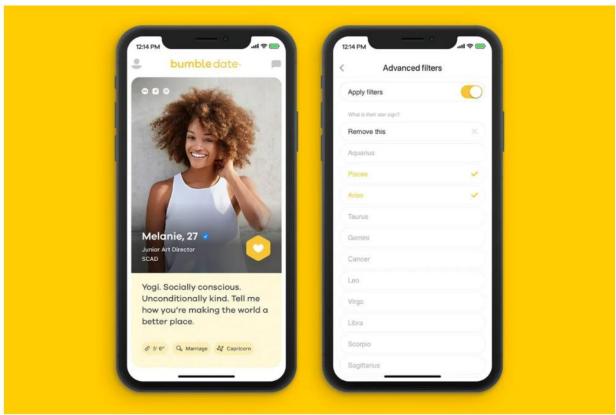
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).

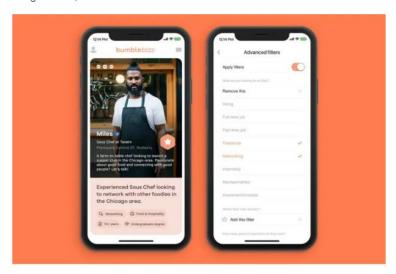
Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

Sarah Perez @sarahintampa / 12:02 PM EST • December 18, 2018



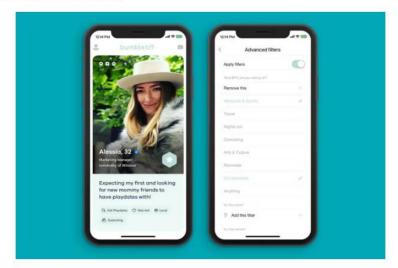
(*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



(*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).

On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

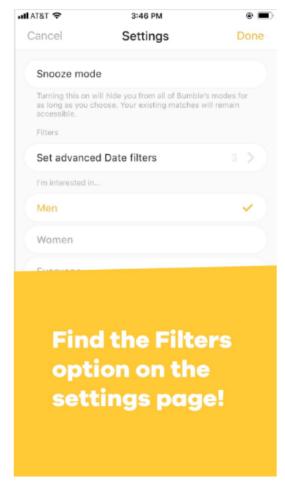
(*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).

How To

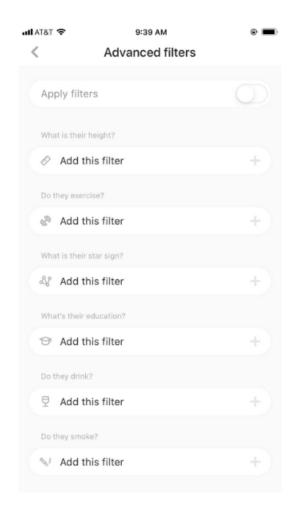
Find the Kind of Relationship You Want with Filters

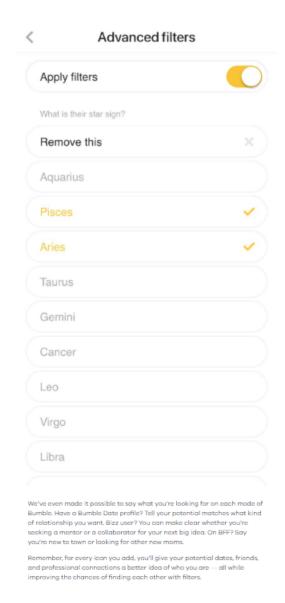


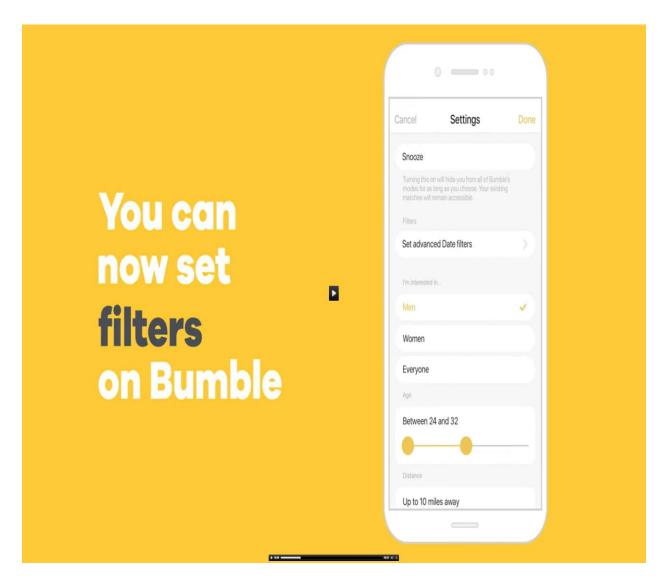
At Bumble, we're committed to introducing you to exceptional people in your area. While we'd love to connect you with every single person, we understand that your time is precious. For a more targeted approach to your relationships, we recently designed the ability for you to show others what you're passionate about and filter for like-minded individuals.



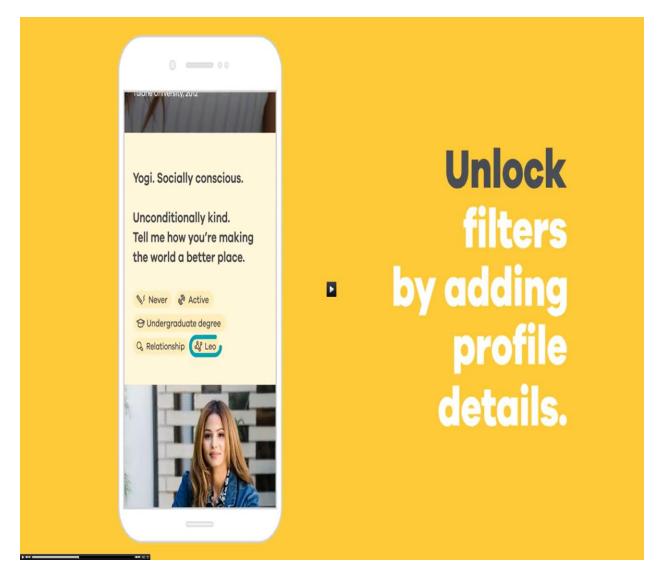
To take advantage of filters, you first need to maximize the details you include about yourself on your profile. When aditing your profile, you'll see you have the option of adding icons that indicate your interests. We encourage you to add icons for the parts of your life that are especially important to you, like your form of faith, political leanings, and/or lifestyle







(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

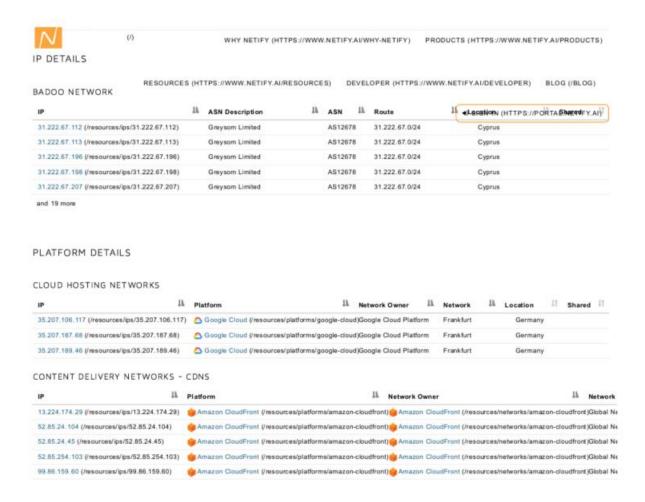
Badoo remains a crucial part of the Bumble offering today. As alluded to earlier, it has more than 2x the number of MAUs and brought in more revenue as recently as 2019. Beyond bolstering the numbers, Bumble and Badoo are interlaced in a few key ways:

1. **Shared infrastructure**. The Bumble and Badoo apps share a common infrastructure, which allows insights to be shared between apps.

(E.g., https://www.generalist.com/briefing/bumble-ipo (published February 10, 2021)).

Badoo is a dati ●badoo	ing-focused social network, allowing users to chat, make friends and share interests.	
Category	Social Media	
Web Link	ß Badoo - Home Page (https://badoo.com)	
	MANAGE BANDWIDTH	
Do you know how	often Badoo traffic flows through your network? There's a time and a place for social media, and Netify provides insights to he your network.	elp manage traffic on
	What gets measured, gets managed.	22222
	LEARN MORE (HTTPS://WWW.NETIFY.AI/WHY-NETIFY/EMPLOYEE-POLICY-AND-PRODUCTIVITY)	₹(- ()}
		ww.
DOMAINS		
PRIMARY DOMAIN	NS	
	urces/domains/badoo.app)	
	resources/domains/badoo.com) purces/domains/badoo.com)	
	esources/domains/badoo.com.ru)	
O bumble.com (/res	ources/domains/bumble.com)	
NETWORKS		
0 31.222.64.0/20		
0 159.253.176.0/21 0 185.153.128.0/22		
2a00:aea0::/32		
PLATFORM USA	AGE SUMMARY	
Cloud Hosts	# of IPs	
△ Google Cloud (/res	sources/platforms/google-cloud) 3	
CDNs	# of iPs	
@ Amazon CloudFror	nt (/resources/platforms/amazon-cloudfront) 5	

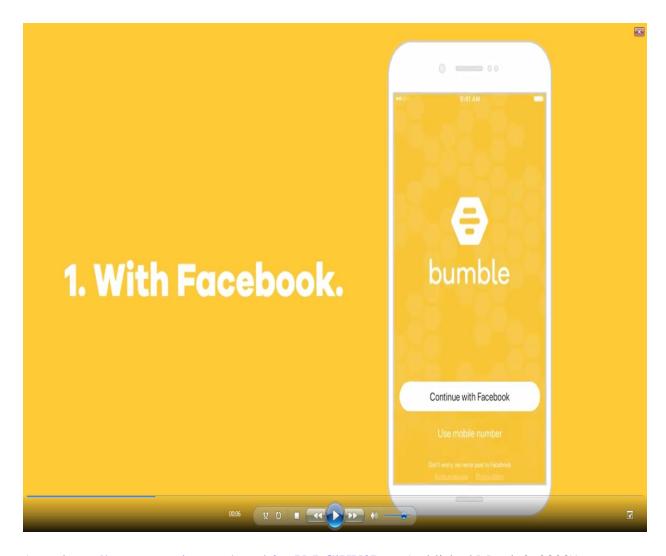
(E.g., https://www.netify.ai/resources/applications/badoo (retrieved August 19, 2023)).



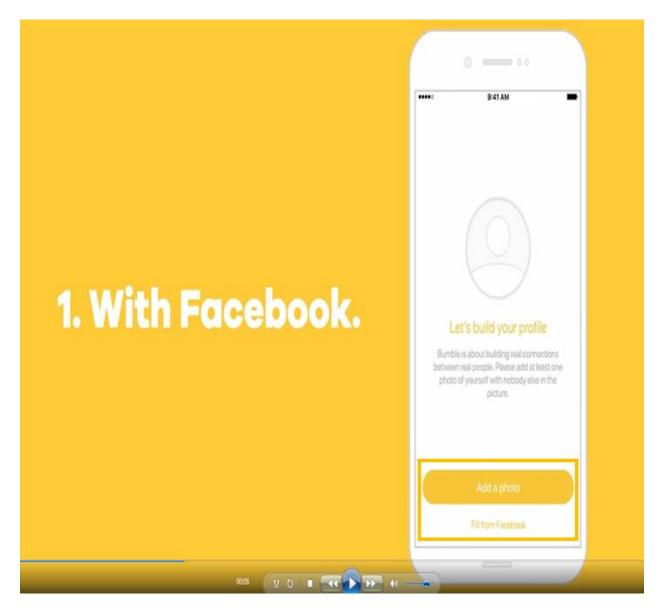
(E.g., https://www.netify.ai/resources/applications/badoo (retrieved August 19, 2023)).

23. The Accused Instrumentality includes an electronic media submissions server subsystem, having one or more data processing apparatus and an electronic media submissions database in order to process and store received submissions from users, for example as discussed above in connection with the Bumble platform, app, website and profile feeds. These submissions, which include *e.g.*, photos, photo ordering selections, prompt selections, prompt responses, and user attributes, to be provided to the Bumble platform via a submissions electronic interface, accessible for example by logging in and selecting an option to upload content or import content from a third party application (such as Facebook), or by selecting applicable areas of the screen within the Bumble app and uploading content, or by holding and dragging, configured to receive

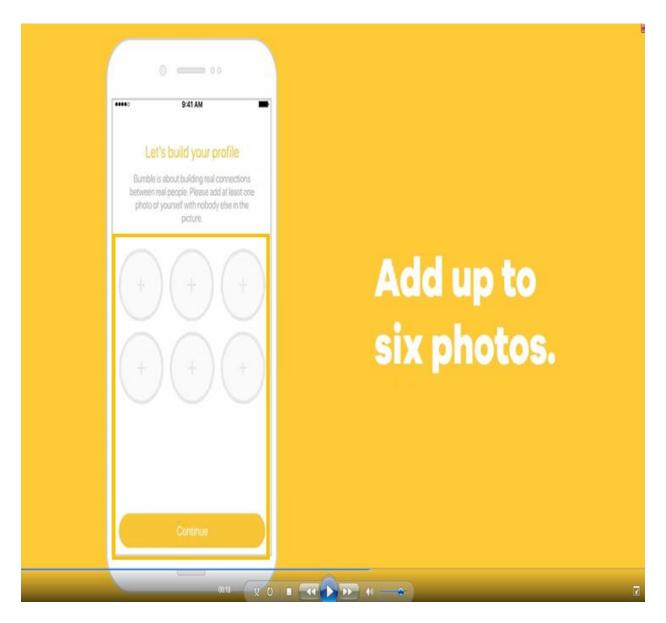
such electronic media submissions and their arrangement information, (*e.g.*, photos, photo ordering selections, prompt selections, prompt responses, and user attributes) from a plurality of submitters (*e.g.*, Bumble users with accompanying created accounts and profiles) over a public network (*e.g.*, the Internet) and stored, via an uploading process, in said electronic media submissions database for use in distribution to other users. Such submissions comprising photos, photo ordering selections, prompt selections, prompt responses, and/or user attributes, are made available via storage in the electronic media submissions database for use in distribution to other users, such as the general userbase of Bumble, as per a respective member's filter selections in conjunction with Bumble's proprietary algorithms as to which user profiles to provide on a given user's profile feed.



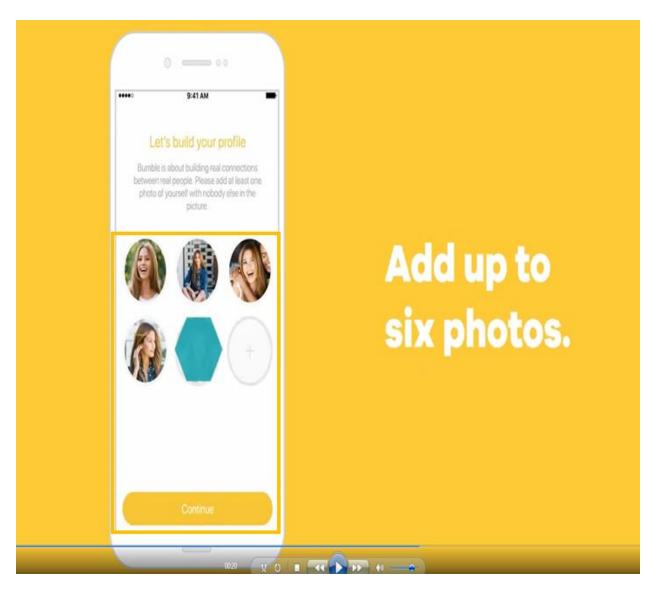
(E.g., https://www.youtube.com/watch?v=VsBGlXY3R6w (published March 2, 2020)).



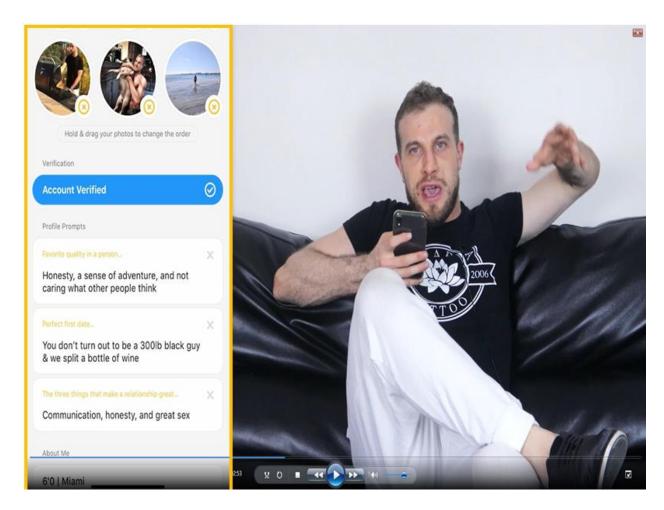
(E.g., https://www.youtube.com/watch?v=VsBGlXY3R6w (published March 2, 2020)).



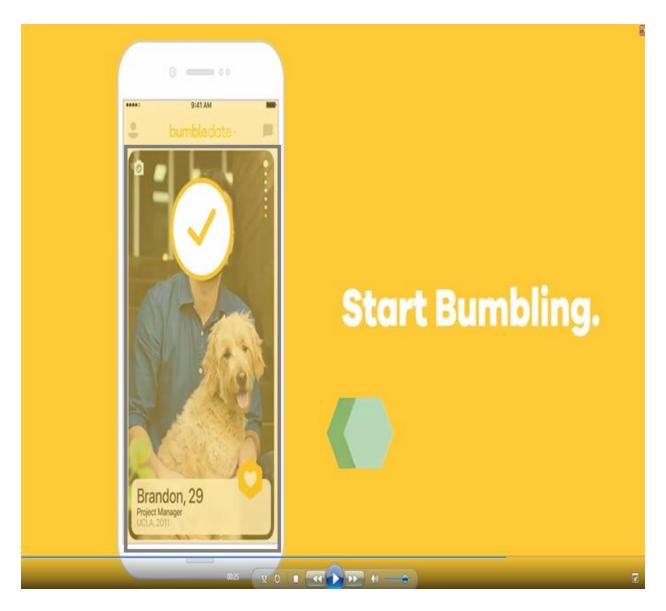
(E.g., https://www.youtube.com/watch?v=VsBGlXY3R6w (published March 2, 2020)).



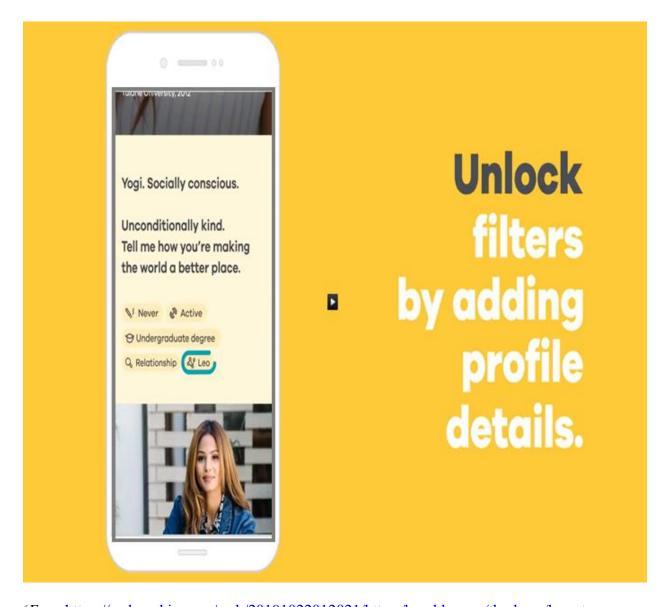
(E.g., https://www.youtube.com/watch?v=VsBGlXY3R6w (published March 2, 2020)).



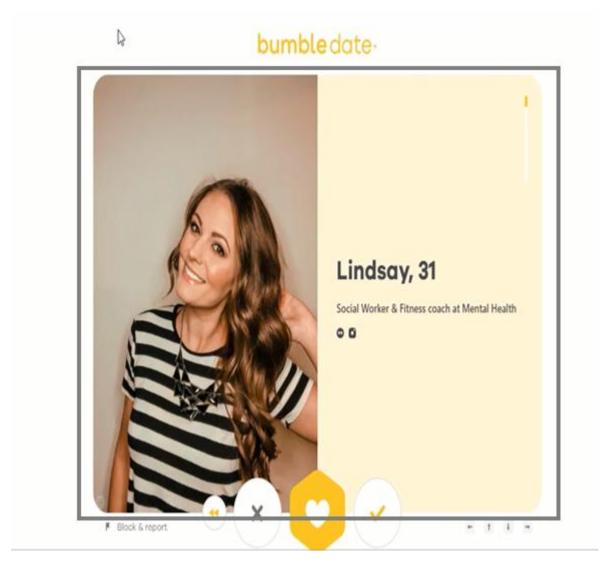
(E.g., https://www.youtube.com/watch?v=VsBGlXY3R6w (published March 2, 2020)).



(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



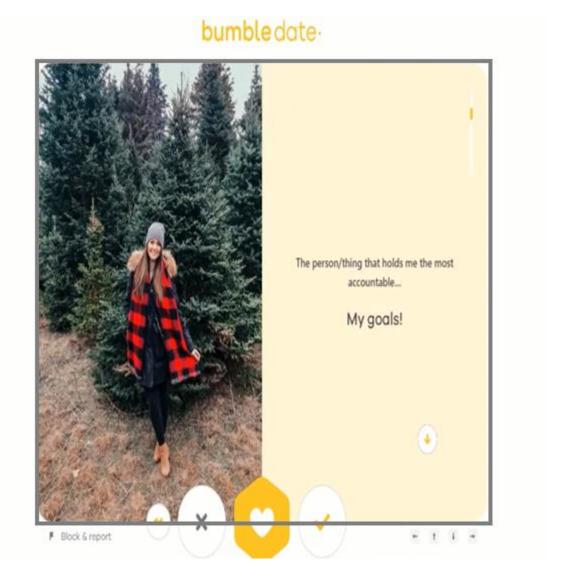
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



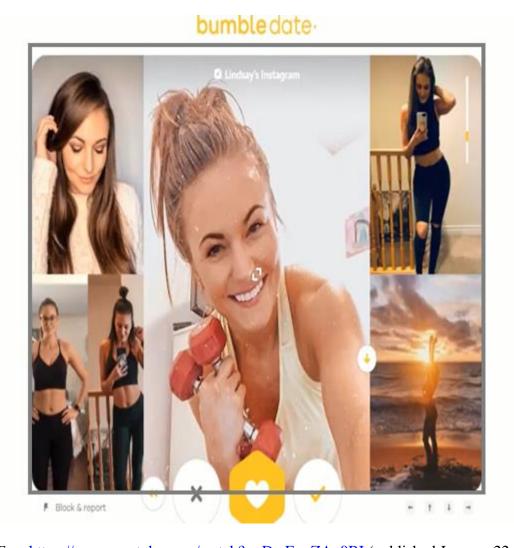
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

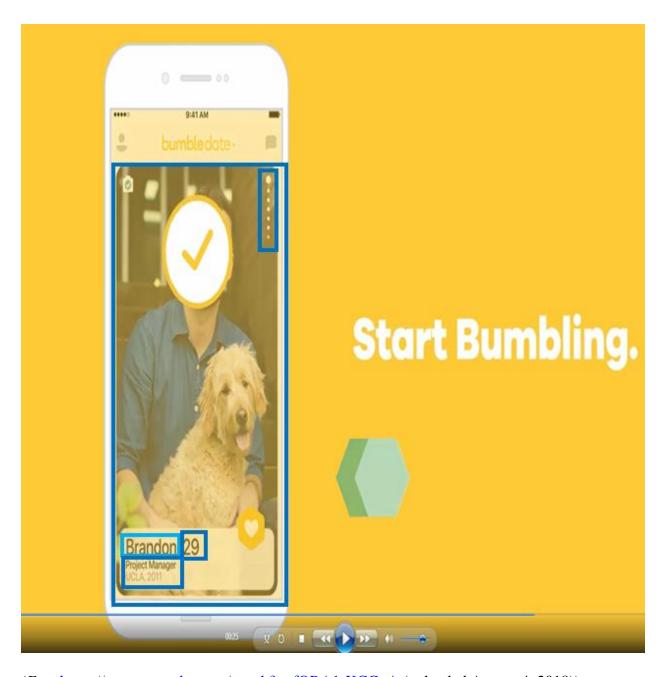


(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

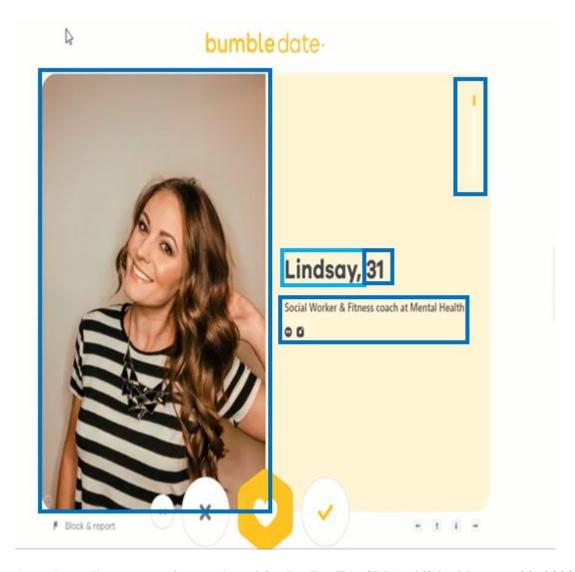


(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

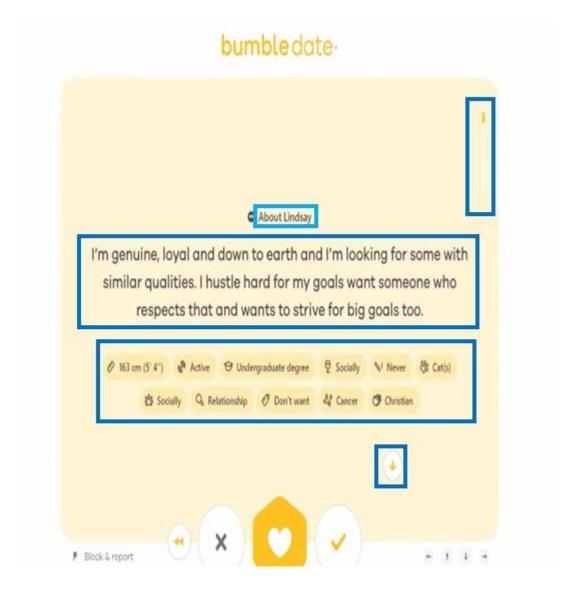
24. The electronic media submissions database of the Accused Instrumentality which stores the submissions (*e.g.*, a submission comprising a profile made up of photos, photo ordering selections, prompt selections, prompt responses, and/or user attributes, submitted by a Bumble user) further stores data identifying the submitter and data indicating content for each electronic media submission, *e.g.*, as shown below with a name identifying the submitter and ordered photos, prompt selections, prompt responses, and/or user attributes, along with navigation options as to further material indicating content.



(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



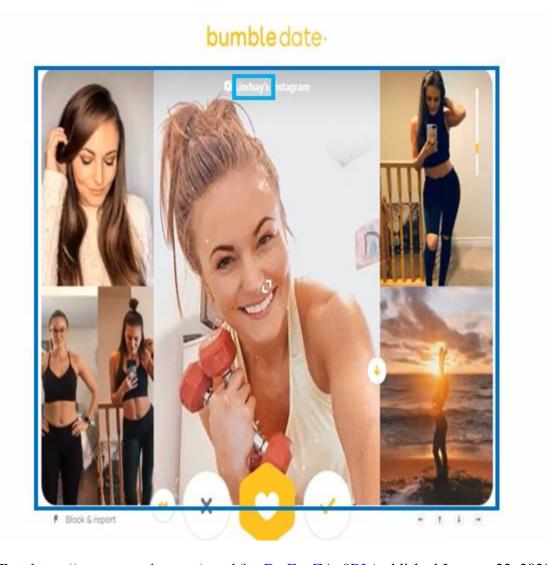
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

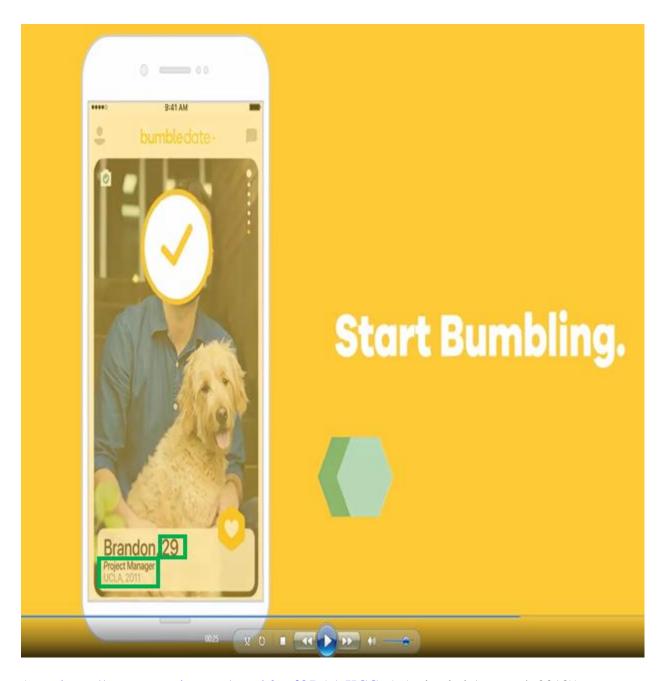
bumble date-The person/thing that holds me the most accountable... My goals! + 1 1 -₱ Block & report

(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

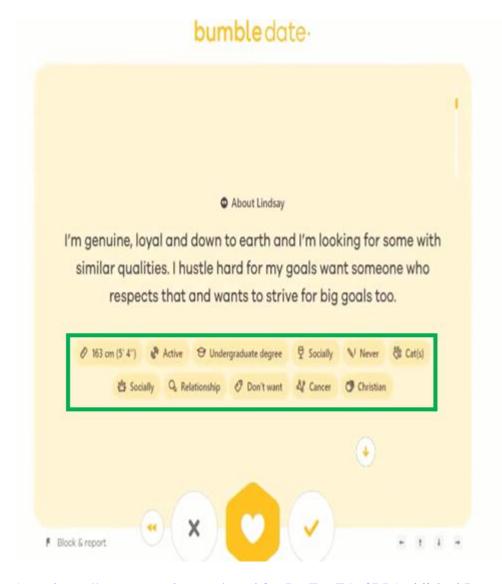
25. The Accused Instrumentality comprises a user database comprising one or more user attributes stored in such database. Such user database is stored in memory available through the Bumble platform, app, website, and profile feeds' servers, for example as discussed above. Some examples of such user attributes stored in such user database on the Bumble platform, app, website, and profile feeds are an age, a job title, a school attended, a graduation year, a height, a physical activity level, a level of education, a drinking level, a smoking level, pet ownership information, a drug use level, an indication of dating seriousness, a child-having interest level, a zodiac sign, and a religion, as shown and discussed for example below.



(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



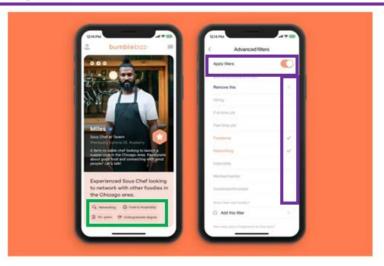
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

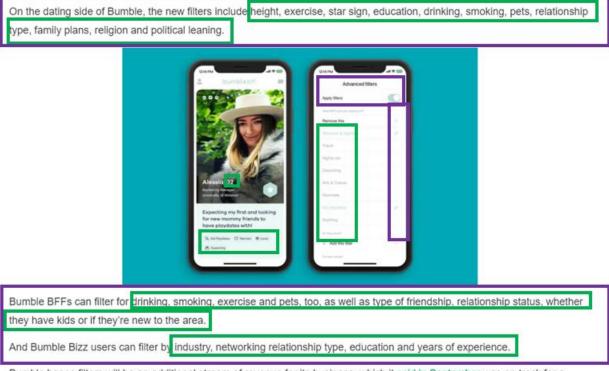
26. The Accused Instrumentality employs an electronic multimedia creator server subsystem operatively coupled to the electronic media submissions server subsystem, necessarily having one or more data processing apparatus in order to manage content, and an electronic creator multimedia database stored on a non-transitory medium, configured to select and retrieve a plurality of electronic media submissions (*e.g.*, profiles of users with associated multimedia content) from the electronic media submissions database using an electronic content filter located on the electronic multimedia creator server. As can be seen below, such electronic content filter as

is used by Bumble Trading LLC is based at least in part on at least one of the one or more user attributes, (e.g., based on, inter alia, an age, a height, a physical activity level, a level of education, a drinking level, a smoking level, pet ownership information, a drug use level, an indication of dating seriousness, a family plans, a gender, a star sign, a religion, political leanings, activity interests, job-seeking status, industry, years of experience, and/or a location, which in turn affects which electronic media submissions, e.g., profiles, appear on a given user's profile feed), as shown and discussed for example below. Bumble Trading LLC uses function-specific subsystems, for example as discussed below. Such electronic content filter is used by the Bumble to develop multimedia content (e.g., various content as discussed above associated with user profiles) to be electronically available for viewing on user devices (e.g., devices such as smart phones or computers incorporating browsers or apps) wherein the identification of the submitter (e.g., a name) is maintained with each selected and retrieved submission within the multimedia content, for example as shown below.

Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.





Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

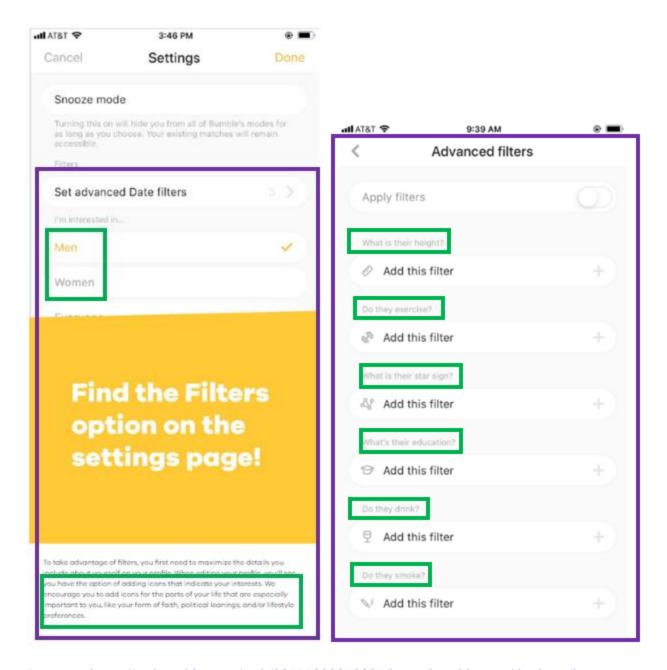
How To

Find the Kind of Relationship You Want with Filters

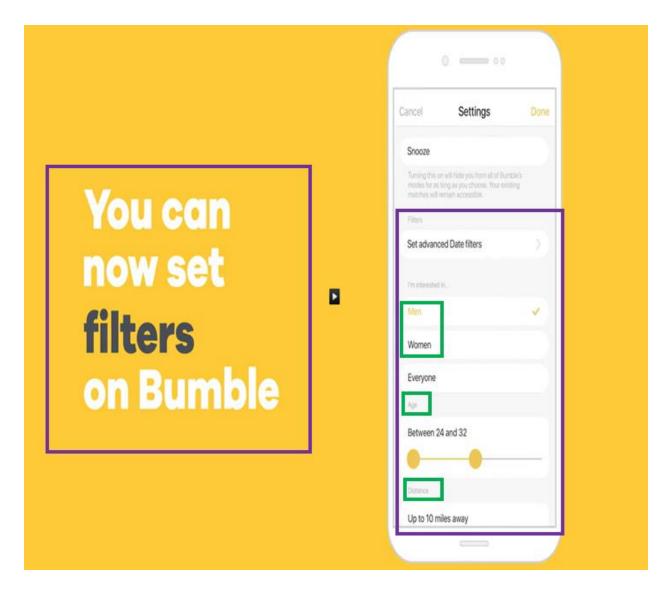


At Bumble, we're committed to introducing you to exceptional people in your area. While we'd love to connect you with every single person, we understand that your time is precious. For a more targeted approach to your relationships, we recently designed the ability for you to show others what you're passionate about and filter for like-minded individuals.

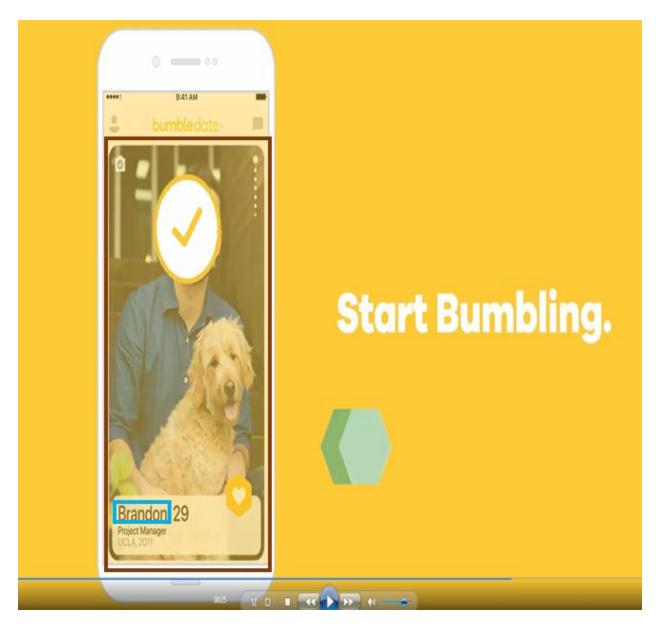
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



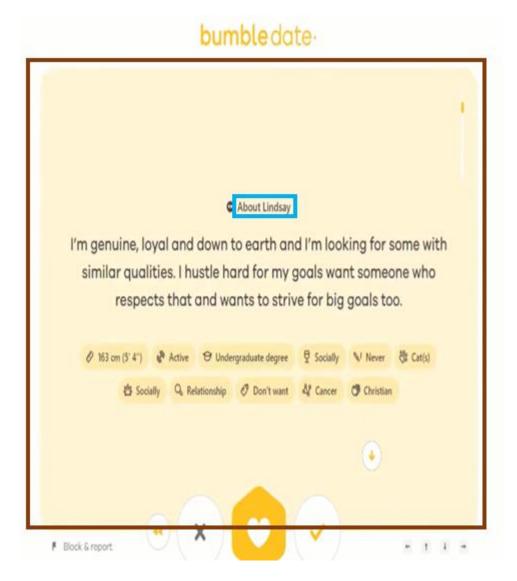
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).

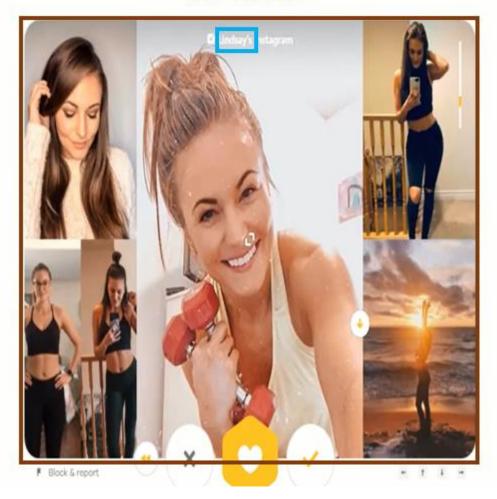


(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

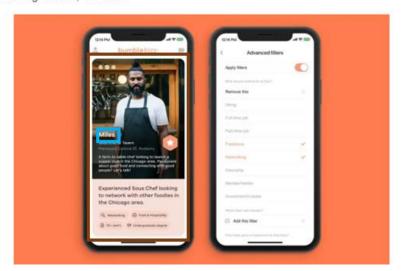
bumble date-



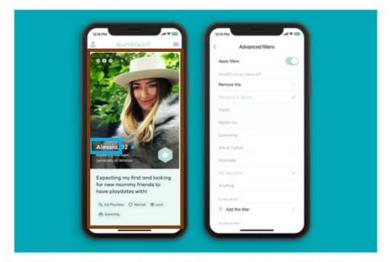
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

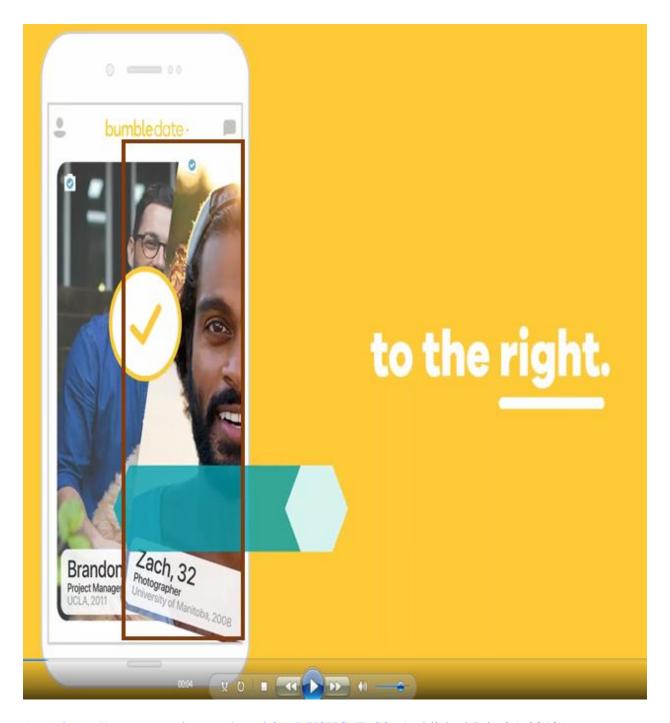
And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

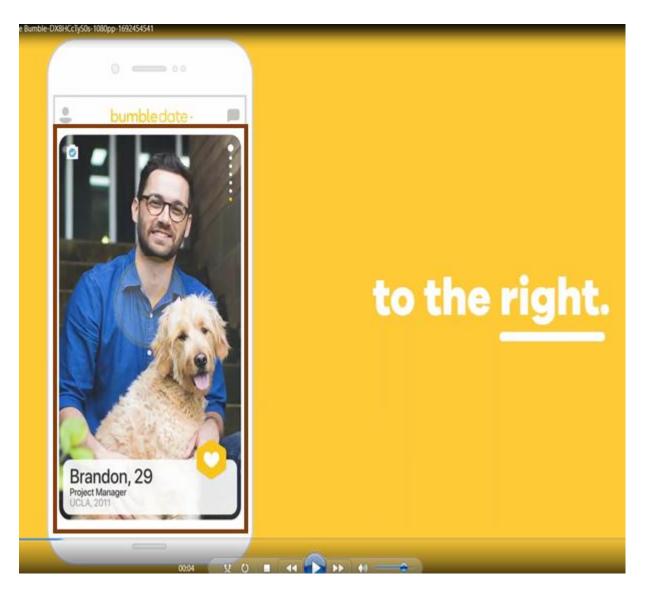
The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

- (*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).
- 27. The Accused Instrumentality employs an electronic release subsystem operatively coupled to the electronic multimedia creator server subsystem, necessarily having one or more data processing apparatus in order to serve profiles and associated content to Bumble users, configured to make the multimedia content electronically available for viewing on one or more user devices. For example, as shown below, multimedia content associated with other users' profiles is provided on a user's device in response to a user logging in to Bumble and viewing their Bumble profile feed. Bumble uses function-specific subsystems, for example as discussed below.

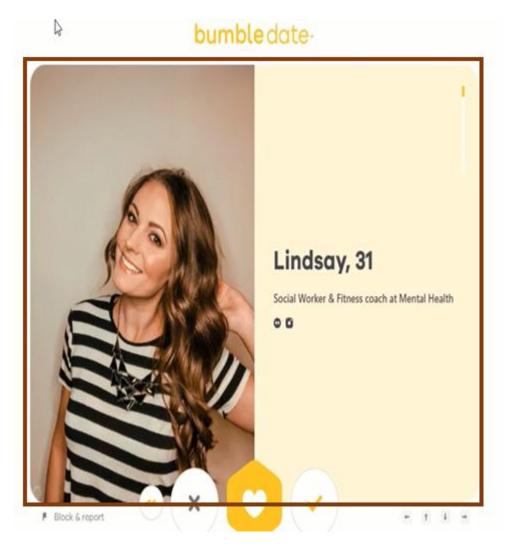
55



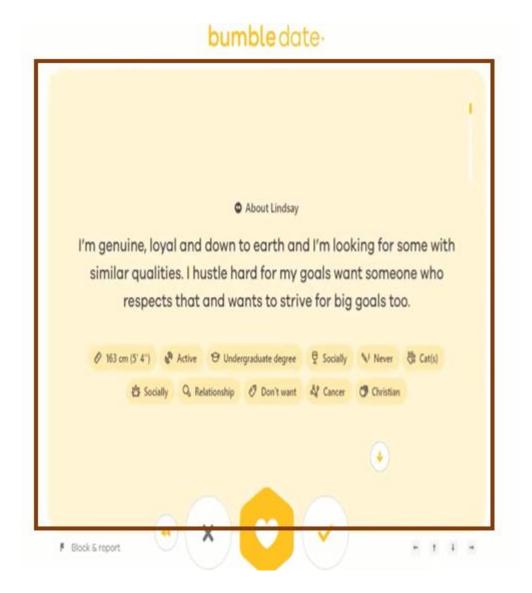
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



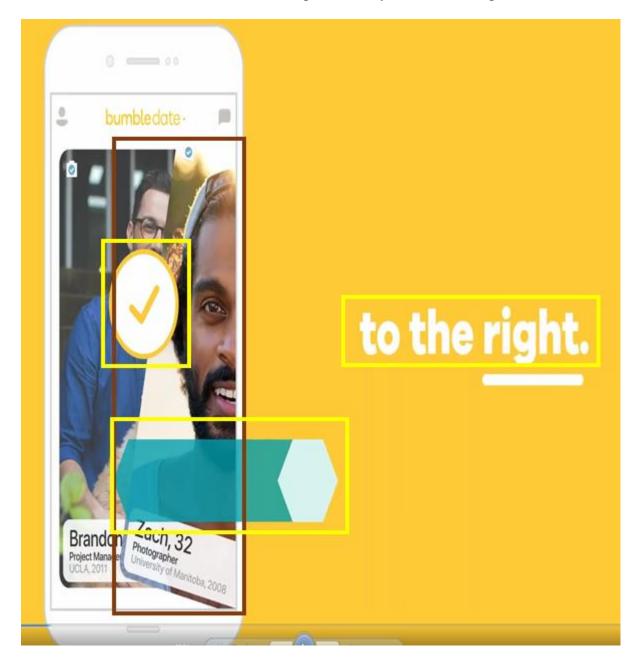
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



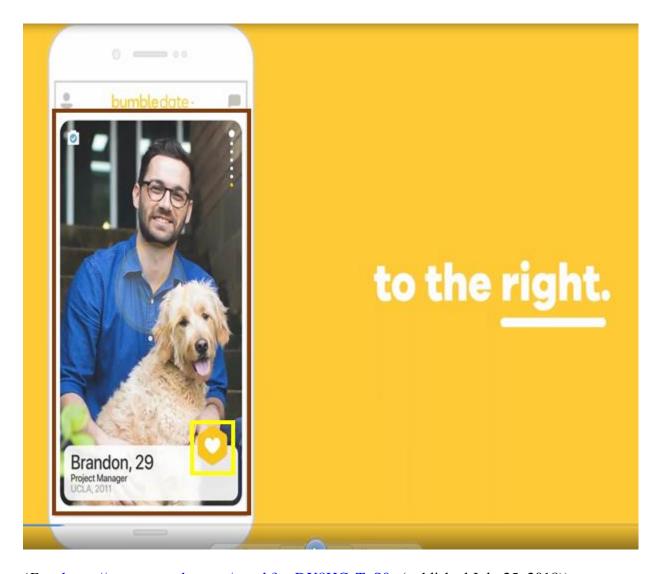
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

28. The Accused Instrumentality employs an electronic voting subsystem, necessarily having one or more data processing apparatus in order to track voting, configured to enable a user to electronically vote for or rate (e.g., by the user's choices with respect to swiping left/rejecting, swiping right/liking, or superliking) an electronically available multimedia content (e.g., a multimedia user profile of another user). As can be seen below, the option to vote for or rate electronically available multimedia content (e.g., a user profile) is made available to users via the user's option to like or reject or "superlike" (yellow heart) the multimedia content, and this voting or rating behavior is tracked and associated with the multimedia content and/or submission so as to allow for matching (or precluding the possibility of matching) and joining a match queue, or

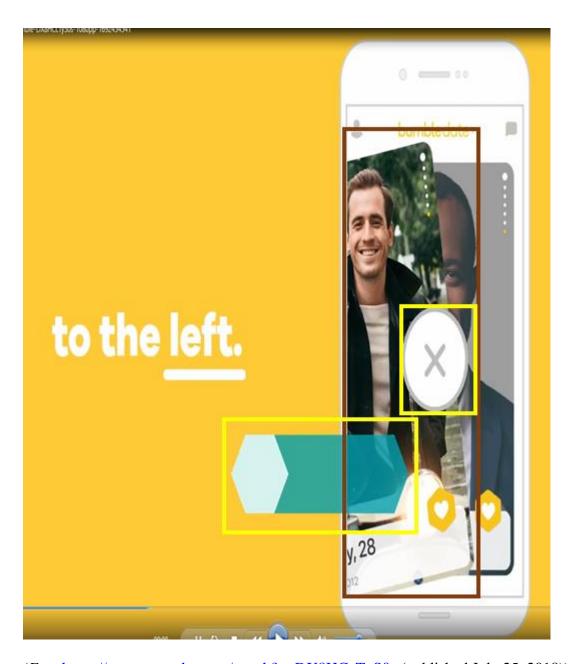
sending a special compliment to the user associated with the respective user profile via a "superlike" even in the absence of a match from the other user. On information and belief, while Bumble's user rating system is proprietary, such user ratings are used to define a user score for the respective profile (*e.g.*, an ELO-style user score) which in turn is used to determine who a profile should be shown to. Bumble uses function-specific subsystems, for example as discussed below.



(*E.g.*, https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).

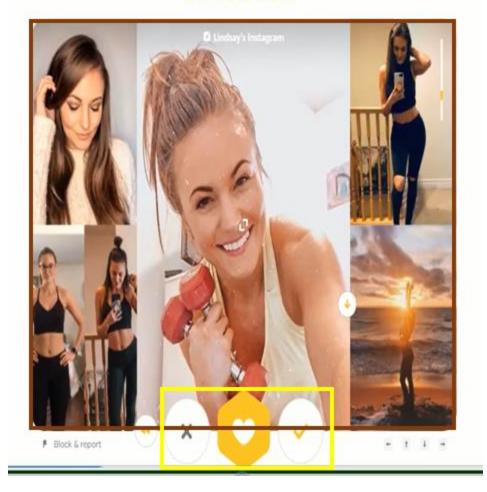


(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(*E.g.*, https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).

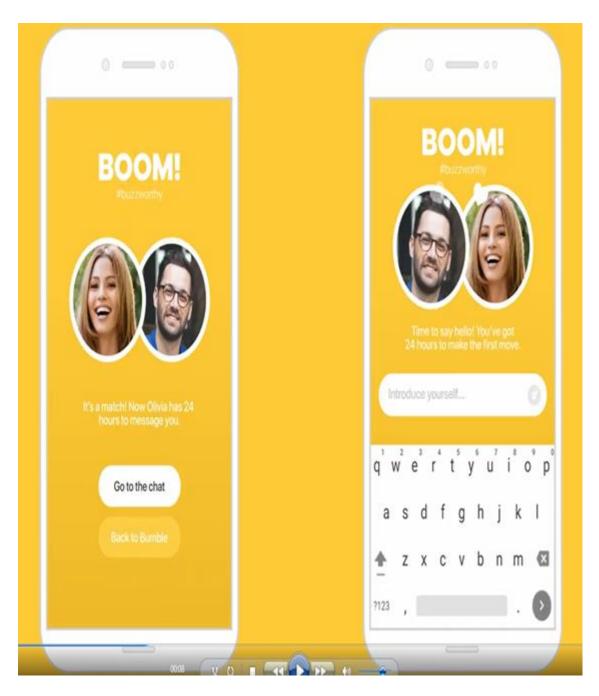
bumble date-



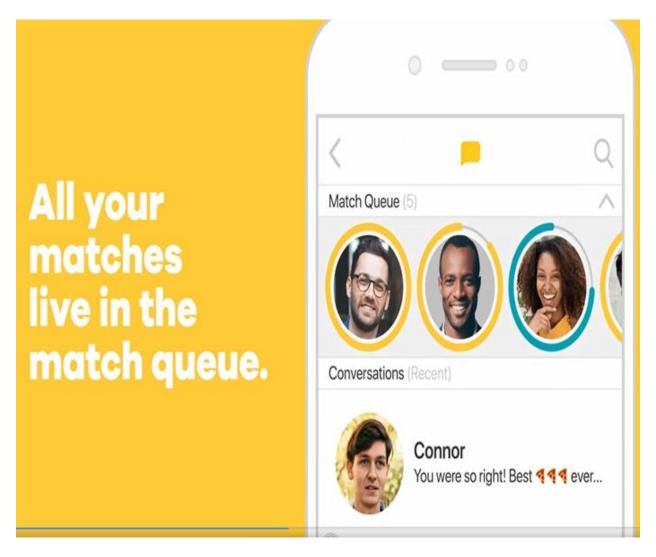
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

Match: When two users indicate they like each other's profiles with a slide.

(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).





How to beat Bumble's algorithm

Bumble's algorithm is reportedly mostly based on the Elo rating system.

The Elo rating system is a method for calculating the relative skill levels of players in zero-sum games.

Your opponent is the profile right in front of you. If you swipe left you win, if you swipe right then you lose. The "relative skill level" in Bumble is the level of appeal that your profile has:

- 1. Whether you are good looking
- 2. Or, you have a great career
- 3. Or, a great personality

Or, a combination of all three. But since there isn't much text to type on our profiles, it's mostly just a combination of the first two.

So your Elo score is based on:

- 1. The number of people that you swiped left on
- 2. The number of people that you swiped right on,
- 3. The number of people that swiped left on you
- 4. The number of people that swiped right on you
- (*E.g.*, https://www.reddit.com/r/Bumble/comments/eo6f9j/how to beat bumbles algorithm/ (published January 13, 2020)).
- 29. Plaintiff has been damaged as a result of Defendant's infringing conduct. Defendant is thus liable to Plaintiff for damages in an amount that adequately compensates Plaintiff for such Defendant's infringement of the '480 Patent, *i.e.*, in an amount that by law cannot be less than would constitute a reasonable royalty for the use of the patented technology, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.
- 30. To the extent marking is required, VCA has complied with all marking requirements.

IV. <u>COUNT II</u> (<u>PATENT INFRINGEMENT OF UNITED STATES PATENT NO. 9,477,665</u>)

31. Plaintiff incorporates the above paragraphs herein by reference.

- 32. On October 25, 2016, United States Patent No. 9,477,665 ("the '665 Patent") was duly and legally issued by the United States Patent and Trademark Office. The '665 Patent is titled "Revenue-Generating Electronic Multi-Media Exchange and Process of Operating Same." A true and correct copy of the '665 Patent is attached hereto as Exhibit B and incorporated herein by reference.
- 33. VCA is the assignee of all right, title, and interest in the '665 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the '665 Patent. Accordingly, VCA possesses the exclusive right and standing to prosecute the present action for infringement of the '665 Patent by Defendant.
- 34. The application leading to the '665 patent was filed November 16, 2012, which was a continuation of application no. 11/978,781, which issued as United States Patent No. 8,340,994, which was a continuation of application no. 09/565,438 which issued as United States Patent No. 7,308,413. (Ex. B at cover). The '665 patent was first assigned to Virtual Creative Artists, LLC. (*Id.*).
- VCA incorporates the background and discussion of the invention in Paragraphs 11-18. Furthermore claim 1 involves a system for generating multimedia content. The claim requires, among other things, electronically generating a multimedia file from the retrieved electronic media Submissions in accordance with a selected digital format, wherein the identification of the submitter is maintained with each retrieved submission within the multimedia file. The claim requires electronically transmitting the multimedia file to a plurality of publicly accessible webservers to be electronically available for viewing on one or more user devices over a public network via a web-browser and. This allows electronically transmit data indicating votes or rating

of multimedia content in a much quicker and easier fashion based on specific user criteria. There is nothing abstract about this very particular, unconventional, and non-routine system for the generation of multimedia content as specifically claimed and there is no risk of preempting creating and distribution contention generally, or even within the context of the Internet.

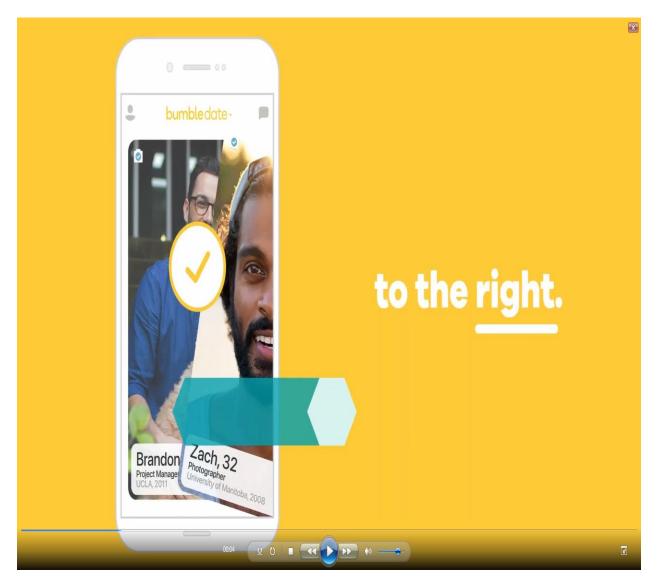
- 36. The invention is a highly technical electronic process that cannot be achieved with the human mind and is instead rooted in computer technology, including the steps of:
 - "electronically retrieving a plurality of electronic media submissions,"
 - "electronically generating a multimedia file from the retrieved electronic media submissions in accordance with a selected digital format,"
 - "electronically transmitting the multimedia file to a plurality of publicly accessible webservers to be electronically available for viewing on one or more user devices over a public network via a web-browser," and
 - "providing a web-based graphical user interface that enables a user to
 electronically transmit data indicating a vote or rating for an electronically
 available multimedia content or an electronic media Submission within a
 respective electronically available multimedia content."
- 37. Each of these subsystems are configured in a very specific (and not generic, unconventional and non-routine manner to offer the novel and non-obvious approach claimed invention. For example, claim 1 requires an "electronic media submissions database," which is a subsystem that receives media submissions from Internet users. This is not a generic database but rather a scalable database that must be able to receive, store, and manage multiple petabytes of multimedia data received from users all over the world. This is one of the many specialized databased required in the claim. In fact, the specification discloses the use of a sophisticated database management system known in the art at the time that was capable of handling data at this level, Oracle7. This type of database management system cannot operate on a generic computing system but rather requires specialized hardware and software.

- 38. The claim also provides details to explain how each step operates. For example, the claim requires "electronically retrieving a plurality of electronic media submissions from an electronic media submissions database using an electronic content filter located on one or more data processing apparatus." Further, "the electronic media submissions database" in this step is further required to "store[] [1] data identifying the submitter and [2] data indicating content for each electronic media submission." The step further requires and "electronic content filter." The "filter" also includes a very specific algorithm of "being based at least in part on at least one of the one or more user attributes."
- 39. The claims also require an "electronically generating a multimedia file from the retrieved electronic media submissions in accordance with a selected digital format." Manipulation of multimedia data in accordance with a selected digital format is far from generic and was not routine or conventional at the time of the invention. Further, this step requires that the "electronic media submissions database" "stores data identifying the submitter" and the "the identification of the submitter is maintained with each retrieved submission within the multimedia file."
- 40. The claims also require "providing a web-based graphical user interface that enables a user to electronically transmit data indicating a vote or rating for an electronically available multimedia content or an electronic media Submission within a respective electronically available multimedia content," which is a well-defined, specific, and unconventional feature. By including this additional voting/rating feature, the claims avoid any risk of preempting the creation and distribution of content.
- 41. The also has inventive concepts. For example, the claim requires that he filtering tool be at a specific location, remote from the end-users, with customizable filtering features specific to each end user. The "electronic content filter" is located at the server, remote from the

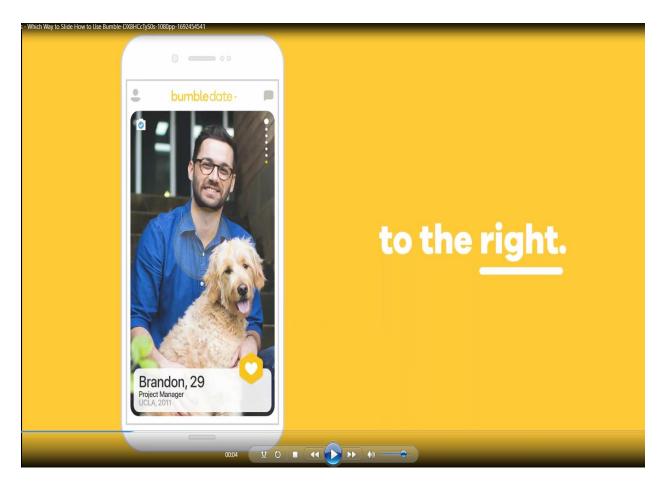
end user, and customizable based on user attributes. The "electron voting" step at the time of the invention was also novel, inventive, and added sufficient inventive contributions to avoid a risk of preempting the creation and distribution of media content. It is clearly possible to create and distribute media content without every having to include a "voting" subsystem on what components should be included in such media content.

- 42. These arguments overcame a patent eligibility rejection under 35 U.S.C. §101 of the claim at issue during the prosecution of the '665 patent before the United States Patent and Trademark Office.
- 43. <u>Direct Infringement.</u> Upon information and belief, Defendant has been directly infringing claim 1 of the '665 Patent in Texas, and elsewhere in the United States, by employing a computer-based system using https://bumble.com/ ("Accused Instrumentality") (e.g., https://bumble.com/).
- 44. The Accused Instrumentality uses a computer system, for example to enable the provision of personalized profile feeds that show users multimedia content including selected multimedia profiles of other users, for dating, business, and friendship purposes, based, *inter alia*, on user-selected preferences and filters, as well as based on algorithmic user scoring that is maintained as proprietary by Bumble Trading LLC Users can mutually form "matches" through mutually selecting each other from the users' respective profile feeds, and can have conversations with those they "match" with. This system makes use of one or more data processing apparatus, and a computer readable medium coupled to the one or more data processing apparatus having instructions stored thereon which, when executed by the one or more data processing apparatus, cause the one or more data processing apparatus to perform an electronic method comprising the functions as further discussed below. For Bumble Trading LLC, during the relevant time period,

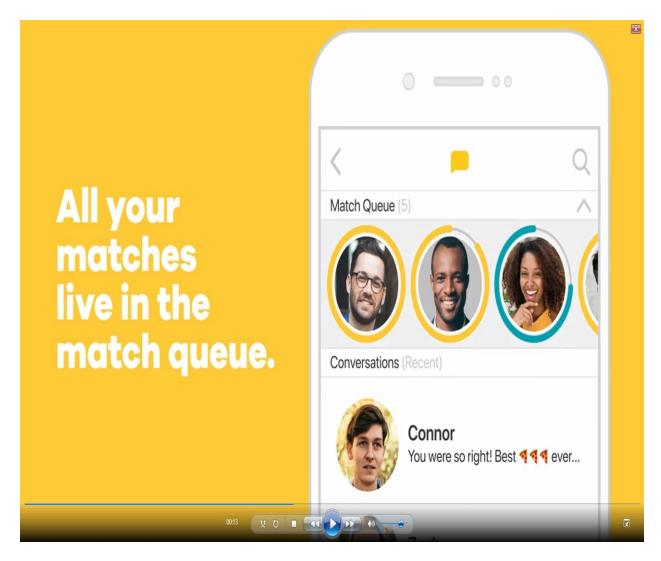
took advantage of multiple cloud server providers jointly used for Bumble and its sister app Badoo, as discussed above, as well as scalability within its cloud server providers, employing separate server subsystems for all its meaningfully different functions, such as those indicated below. Bumble Trading LLC uses and has used during the relevant time period, numerous different networks, IP addresses, and providers for, *inter alia*, cloud hosting, content delivery networks (CDNs), and a variety of networks, thereby using separate server subsystems for all its meaningfully different functions, such as those indicated below.



(*E.g.*, https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



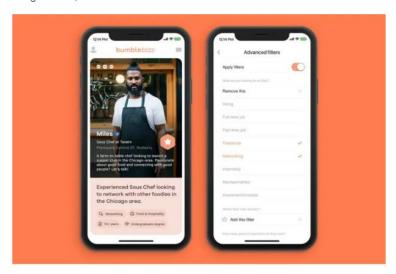
(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).

Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

Sarah Perez @sarahintampa / 12:02 PM EST - December 18, 2018

| Comment | Parent | P

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



(*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).

On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

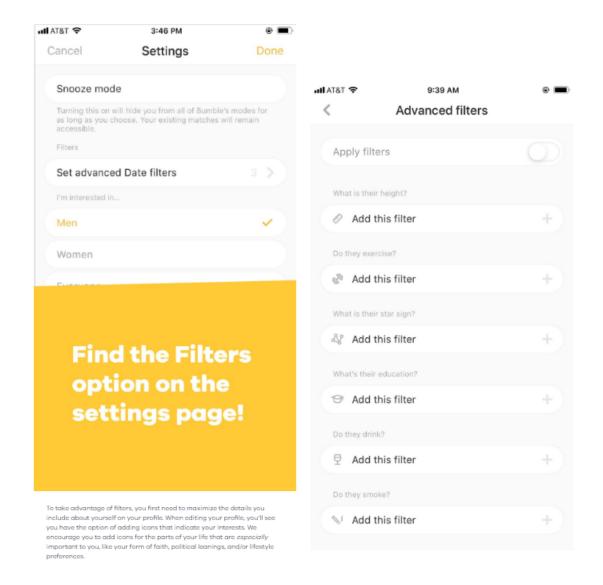
The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

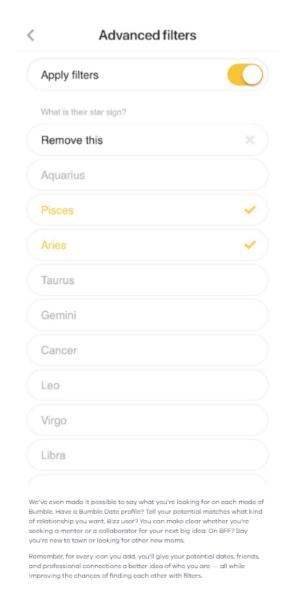
How To

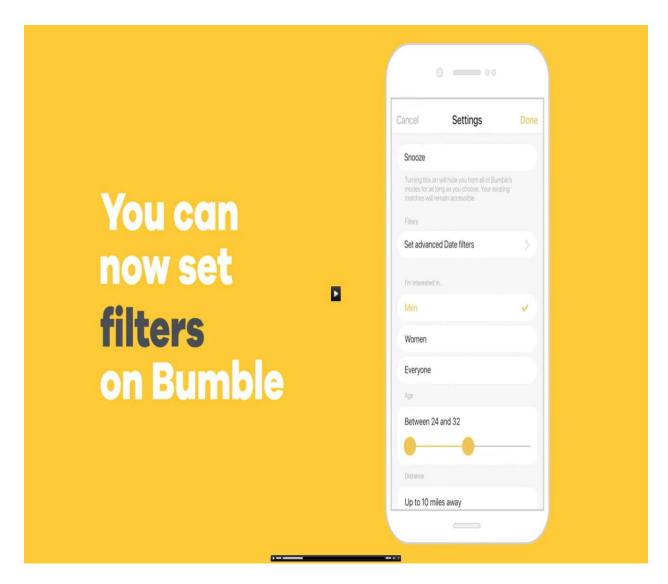
Find the Kind of Relationship You Want with Filters



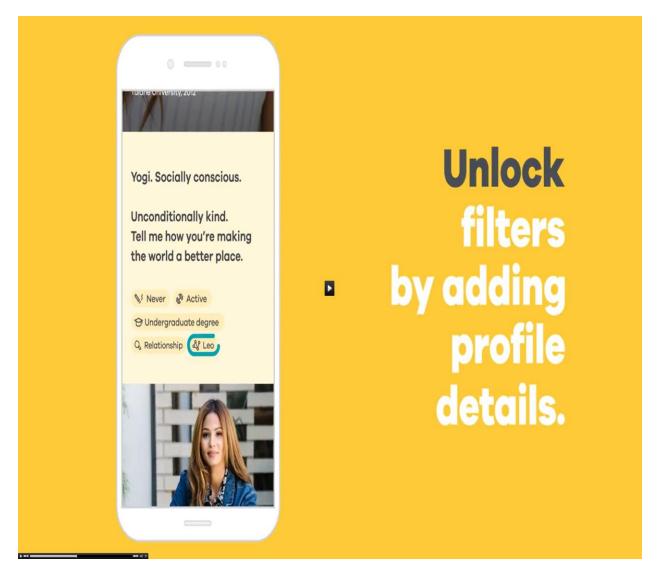
At Bumble, we're committed to introducing you to exceptional people in your area. While we'd love to connect you with every single person, we understand that your time is precious. For a more targeted approach to your relationships, we recently designed the ability for you to show others what you're passionate about and filter for like-minded individuals.







(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

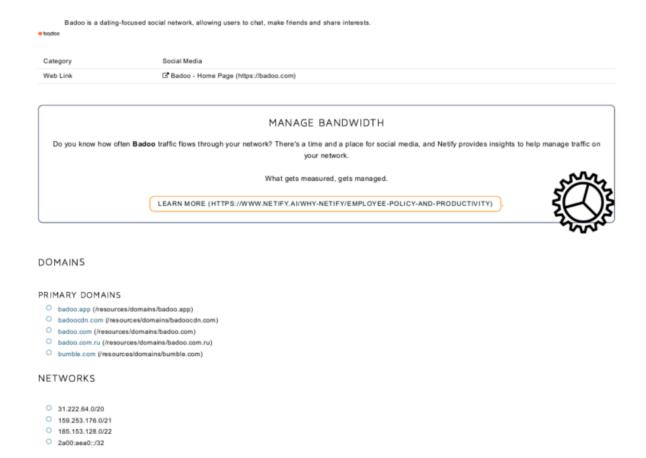


(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

Badoo remains a crucial part of the Bumble offering today. As alluded to earlier, it has more than 2x the number of MAUs and brought in more revenue as recently as 2019. Beyond bolstering the numbers, Bumble and Badoo are interlaced in a few key ways:

 Shared infrastructure. The Bumble and Badoo apps share a common infrastructure, which allows insights to be shared between apps.

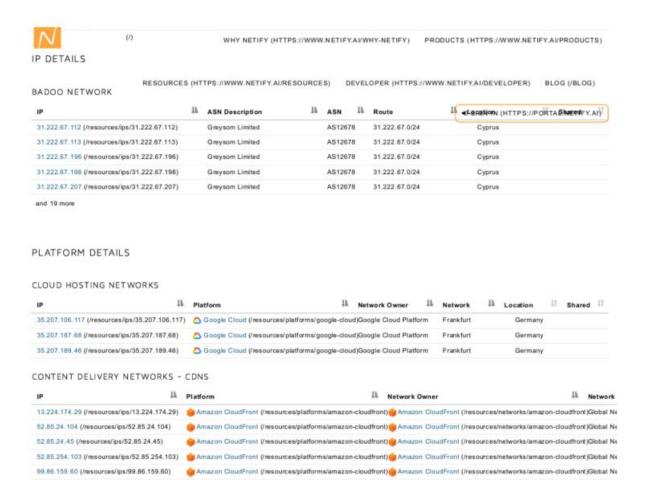
(E.g., https://www.generalist.com/briefing/bumble-ipo (published February 10, 2021)).



PLATFORM USAGE SUMMARY

Cloud Hosts	# of IPs
Google Cloud (/resources/platforms/google-cloud)	3
CDNs	# of IPs
	5

(E.g., https://www.netify.ai/resources/applications/badoo (retrieved August 19, 2023)).



(E.g., https://www.netify.ai/resources/applications/badoo (retrieved August 19, 2023)).

45. The Accused Instrumentality comprises a user database comprising one or more user attributes stored in such database. Such user database is stored in memory available through the Bumble platform's servers, for example as discussed below. Some examples of such user attributes stored in such user database on the Bumble platform, app, websites, and profile feeds are an age, a height, a physical activity level, a level of education, a drinking level, a smoking level, pet ownership information, a drug use level, an indication of dating seriousness, a family plans, a gender, a star sign, a religion, political leanings, activity interests, job-seeking status, industry, years of experience, and/or a location. The Accused Instrumentality electronically retrieves, from storage in an electronic media submissions database on a non-transitory medium,

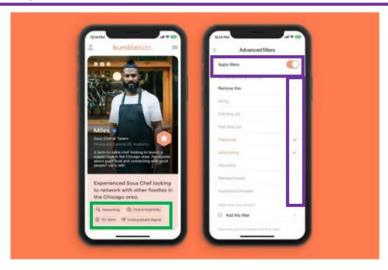
a plurality of electronic media submissions from an electronic media submissions database using an electronic content filter necessarily located on and associated with one or more data processing apparatus in order to manage content. As can be seen below, such electronic content filter as is used for the Bumble profile feeds is based at least in part on at least one of the one or more user attributes, (e.g., based on an age, a height, a physical activity level, a level of education, a drinking level, a smoking level, pet ownership information, a drug use level, an indication of dating seriousness, a family plans, a gender, a star sign, a religion, political leanings, activity interests, job-seeking status, industry, years of experience, and/or a location) which in turn affects which electronic media submissions corresponding to other users' profiles appear on a given user's profile feed. As can be seen below, such electronic content filter as is used by Bumble is based at least in part on at least one of the one or more such user attributes, as shown and discussed for example below. Bumble uses function-specific subsystems, for example as discussed below.

Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

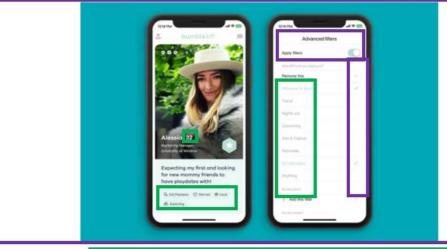
Sarah Perez @sarahintampa / 12:02 PM EST • December 18, 2018

| Comment | Co

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

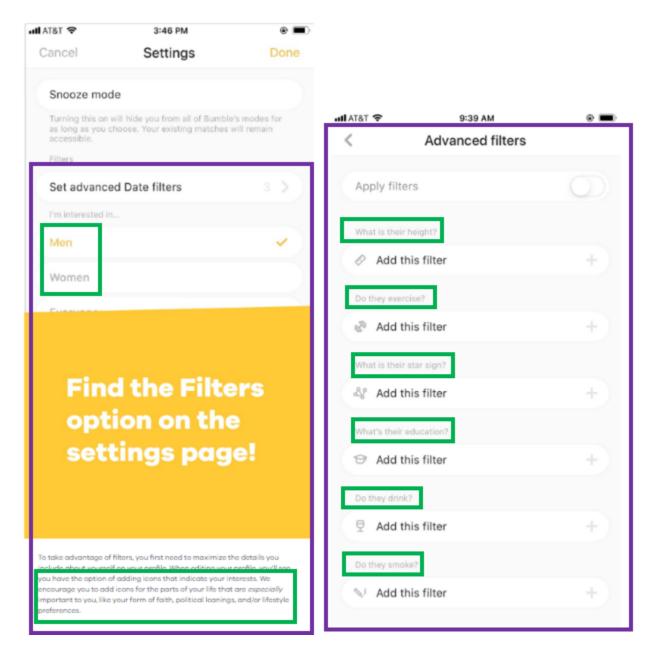
(E.g.,https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-onbumble-date-bizz-and-bff/ (published December 18, 2018)).

How To

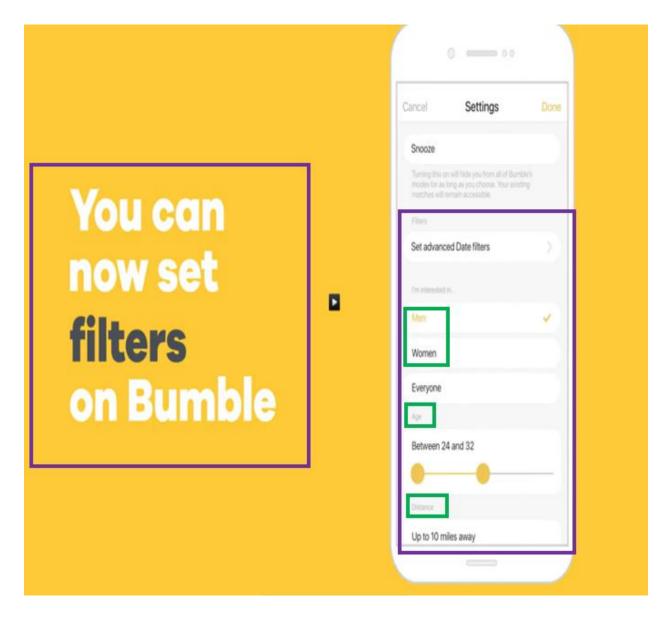
Find the Kind of Relationship You Want with Filters



At Bumble, we're committed to introducing you to exceptional people in your area. While we'd love to connect you with every single person, we understand that your time is precious. For a more targeted approach to your relationships, we recently designed the ability for you to show others what you're passionate about and filter for like-minded individuals.

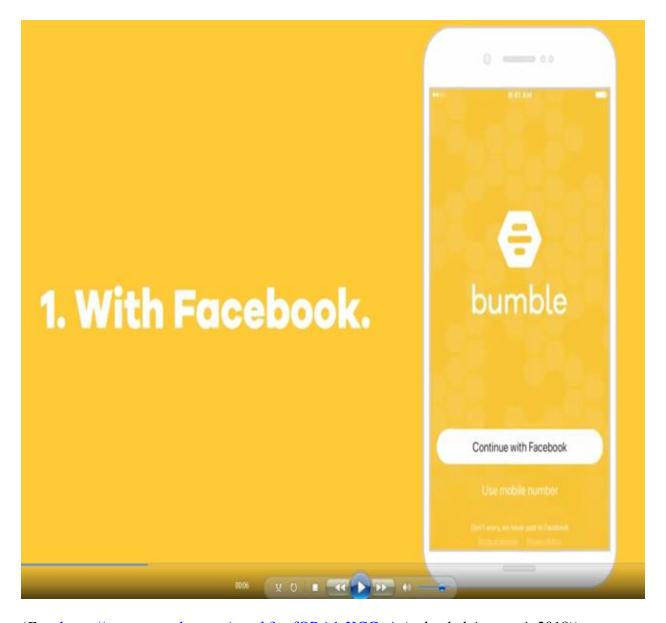


(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

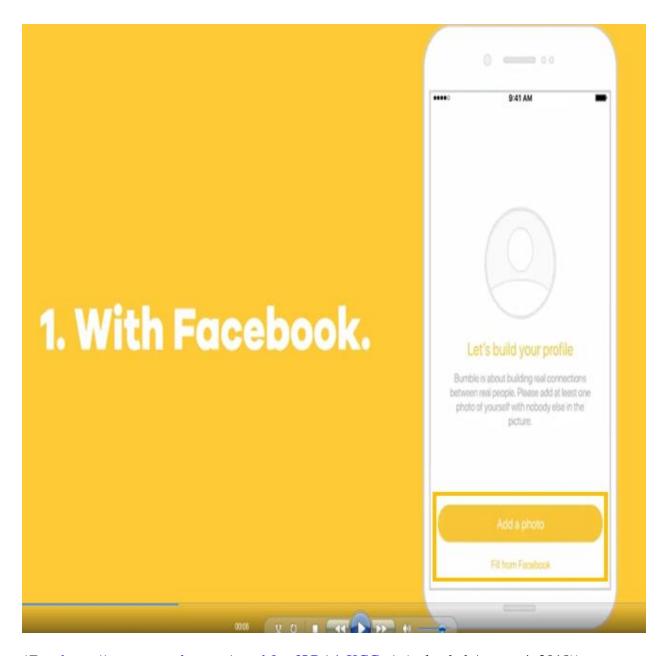


- (*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).
- 46. The Accused Instrumentality enables a plurality of electronic media submissions to be provided to the Bumble platform. These submissions, which include *e.g.*, photos, photo ordering selections, prompt selections, prompt responses, and user attributes, to be provided to the Bumble platform via a submissions electronic interface, accessible for example by logging in and selecting an option to upload content or import content from a third party application (such as Facebook),

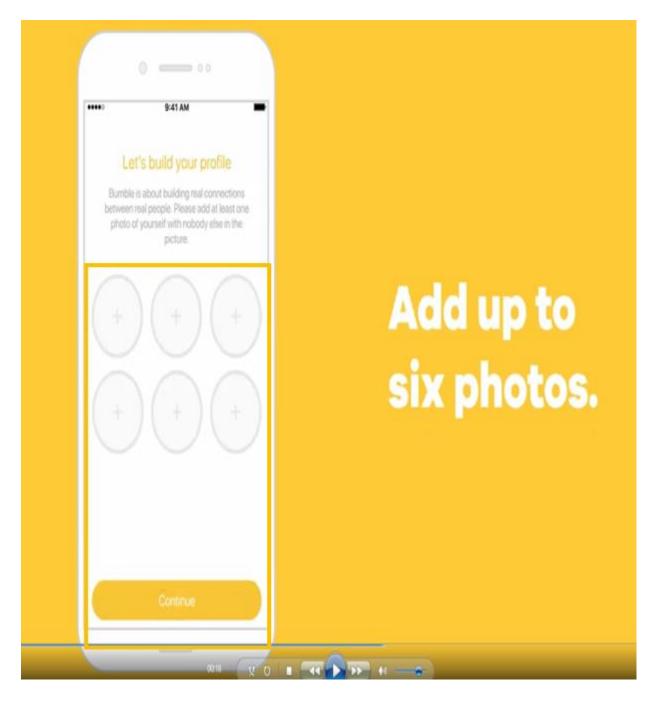
or by selecting applicable areas of the screen within the Bumble app and uploading content, or by holding and dragging, configured to receive such electronic media submissions and their arrangement information, (e.g., photos, photo ordering selections, prompt selections, prompt responses, and user attributes) from a plurality of submitters (e.g., Bumble users with accompanying created accounts and profiles) over a public network (e.g., the Internet) and stored, via an uploading process, in said electronic media submissions database for use in distribution to other users. Such submissions comprising photos, photo ordering selections, prompt selections, prompt responses, and/or user attributes, are made available via storage in the electronic media submissions database for use in distribution to other users, such as the general userbase of Bumble, as per a respective member's filter selections in conjunction with Bumble's proprietary algorithms as to which user profiles to provide on a given user's profile feed.



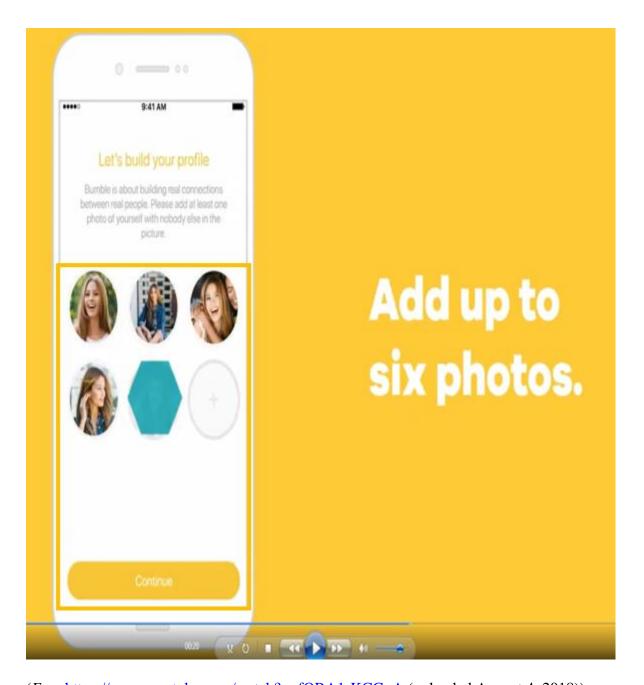
(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



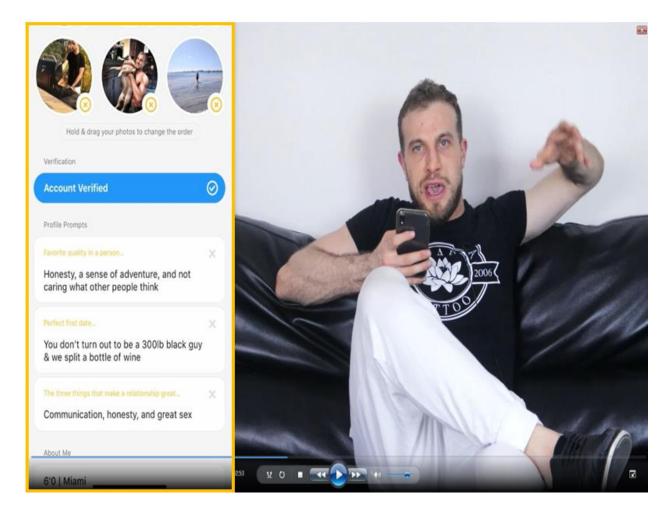
(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).

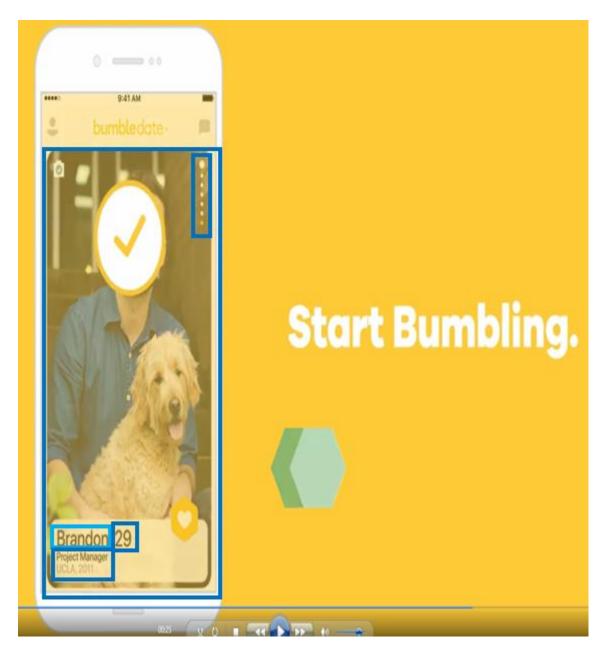


(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



(E.g., https://www.youtube.com/watch?v=VsBGlXY3R6w (published March 2, 2020)).

47. The electronic media submissions database of the Accused Instrumentality stores the submissions (*e.g.*, a submission comprising a profile made up of photos, photo ordering selections, prompt selections, prompt responses, and/or user attributes, submitted by a Bumble user) further stores data identifying the submitter and data indicating content for each electronic media submission, *e.g.*, as shown below with a name identifying the submitter and ordered photos, prompt selections, prompt responses, and/or user attributes, along with navigation options as to further material indicating content.



(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



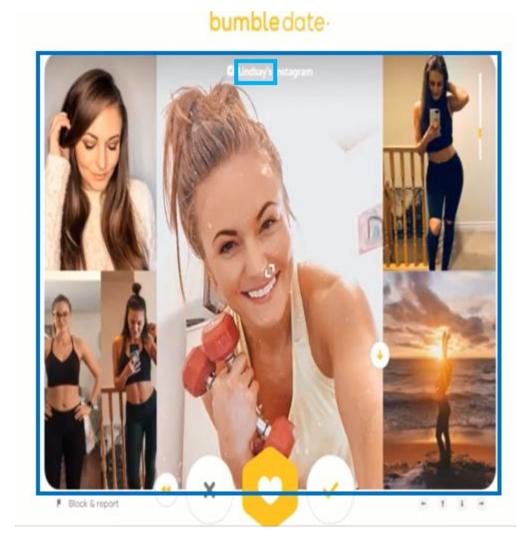
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



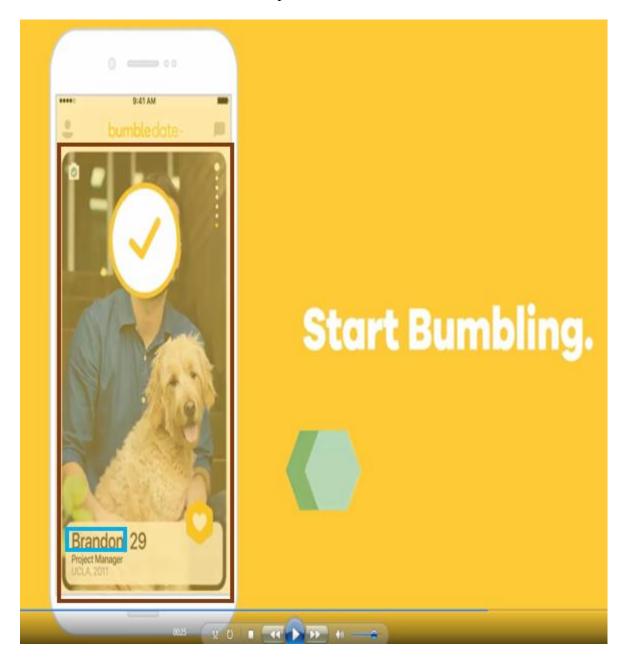
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

48. The Accused Instrumentality electronically generates multimedia files from the retrieved electronic media submissions in accordance with a selected digital format (*e.g.*, a digital format compatible with a selected digital format compatible with the particular smart phone, browser, or application of a particular user), wherein the identification of the submitter is maintained with each retrieved submission within the multimedia file. For example, below are examples of such multimedia files being displayed within a user's browser or app, on a user device (*e.g.*, a devices such as a or computer incorporating a browser or app), in association with the

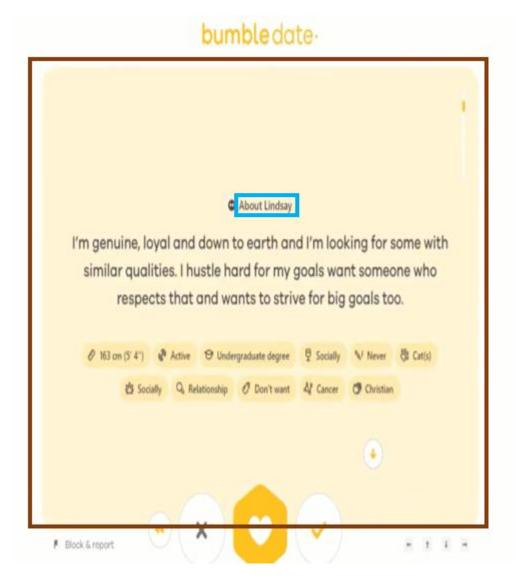
identification of the submitter (*e.g.*, a first name) for each retrieved submission (*e.g.*, user profile) within the multimedia content, for example as shown below.



(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

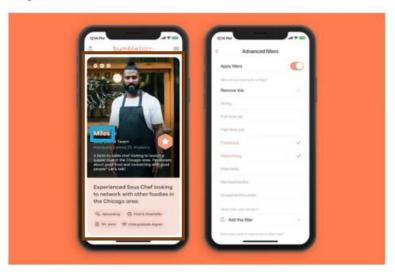
bumble date-



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

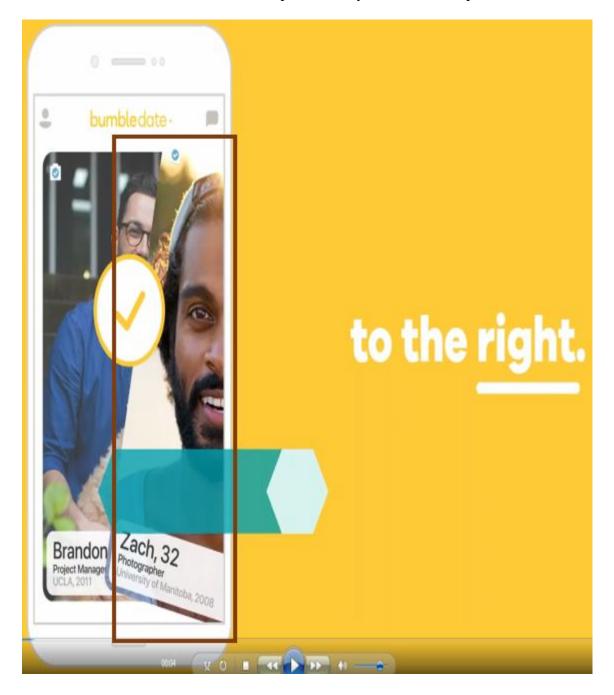
And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

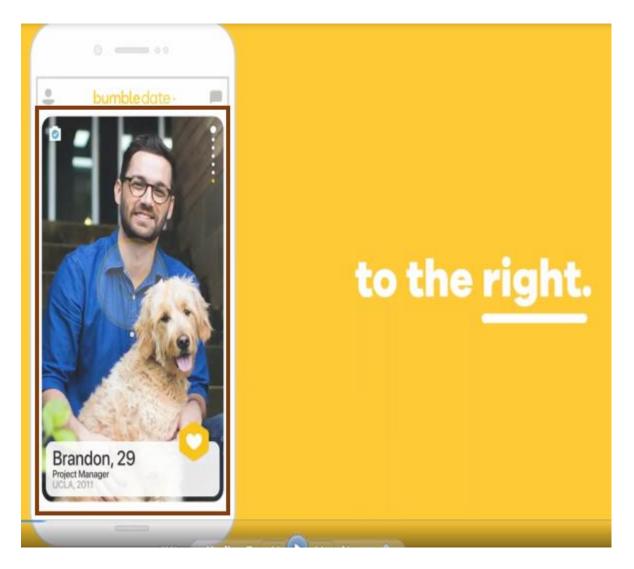
The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

- (*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).
- 49. The Accused Instrumentality electronically transmits the multimedia file to a plurality of publicly available webservers, for example as discussed above in connection with Bumble's servers, in order to ensure rapid delivery to any of various users from amongst a geographically-distributed userbase, to be electronically available for viewing on one or more user devices of such userbase over a public network (*e.g.*, the Internet) via a web-browser. An example of viewing of such multimedia files and their associated multimedia content on user devices via a public network via a smart phone app, which functions as a web-browser to view various Internet-

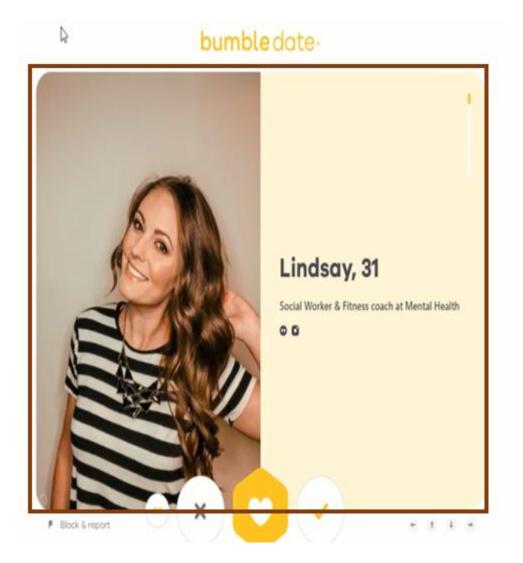
supplied content hosted from the Bumble platform as well as via a computer-based web browser is shown below. Bumble uses function-specific subsystems, for example as discussed below.



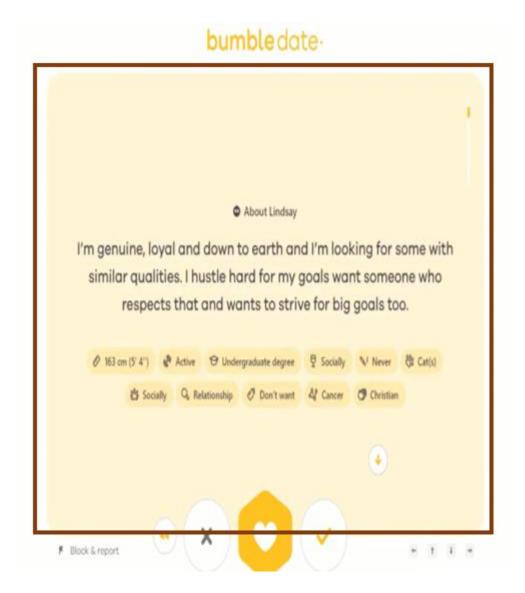
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



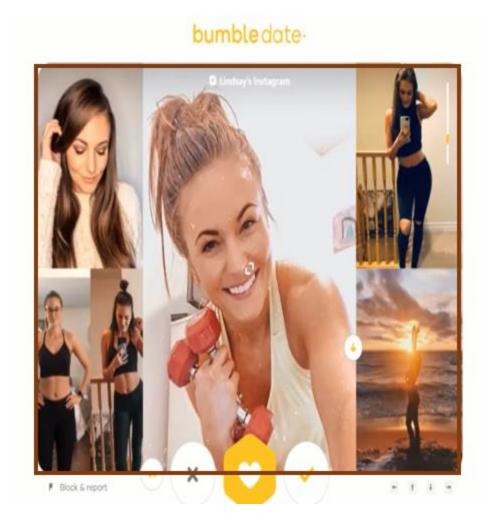
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



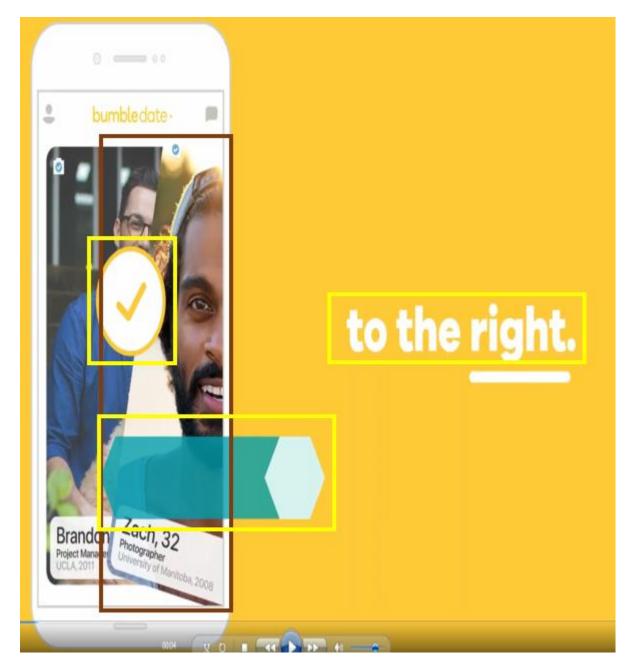
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



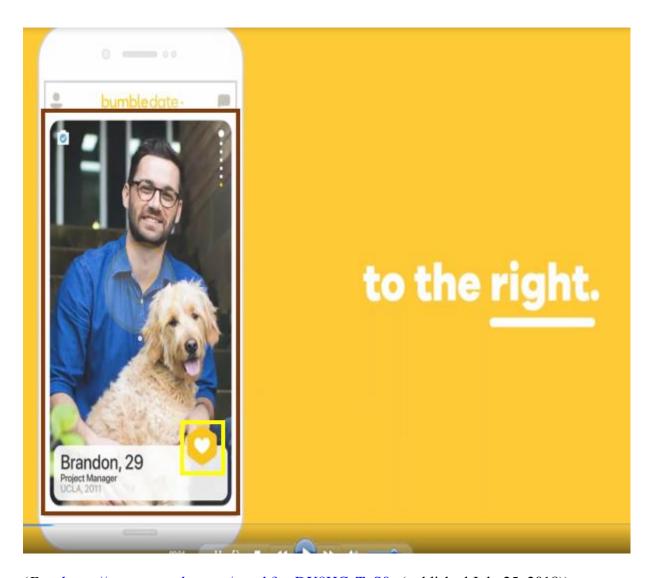
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

50. The Accused Instrumentality's web-based graphical user interface (for example as discussed above) allows a user to electronically transmit data indicating a vote or rating (e.g., data indicative of swiping left/rejecting, swiping right/liking, or superlinking) for an electronically available multimedia content (e.g., a multimedia user profile of another user). As can be seen below, the option to vote for or rate electronically available multimedia content (e.g., a user profile) is made available to users via the user's option to like or reject or "superlike" (yellow heart) the multimedia content, and this voting or rating behavior is tracked and associated with the multimedia content and/or submission so as to allow for matching (or precluding the possibility of matching) and joining a match queue, or sending a special compliment to the user associated with

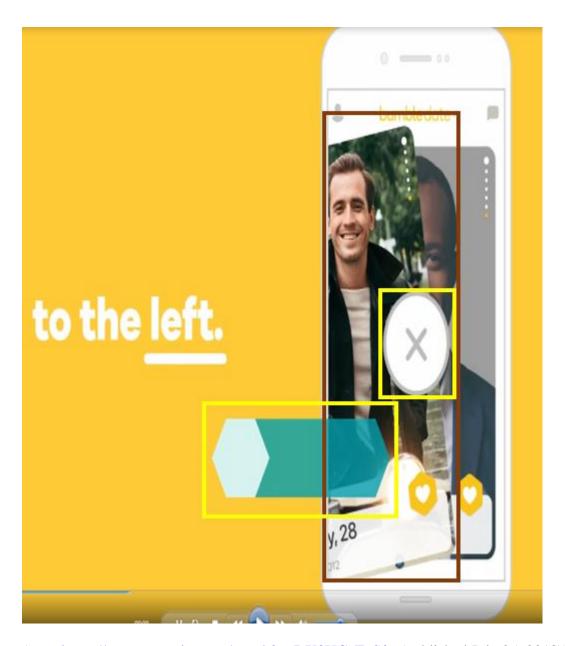
the respective user profile via a "superlike" even in the absence of a match from the other user. On information and belief, while Bumble' user rating system is proprietary, such user ratings are used to define a user score for the respective profile (*e.g.*, an ELO-style user score) which in turn is used to determine who a profile should be shown to.



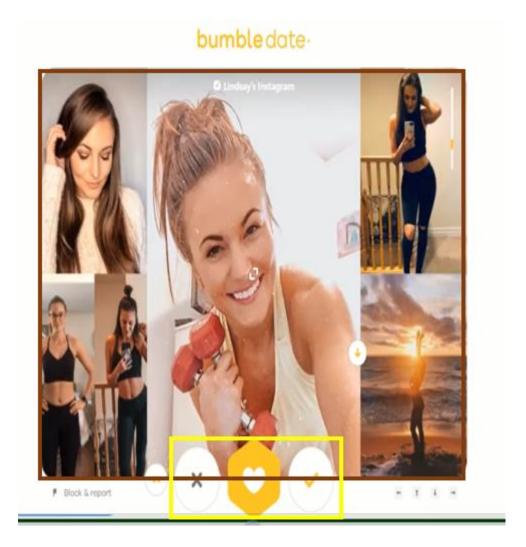
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



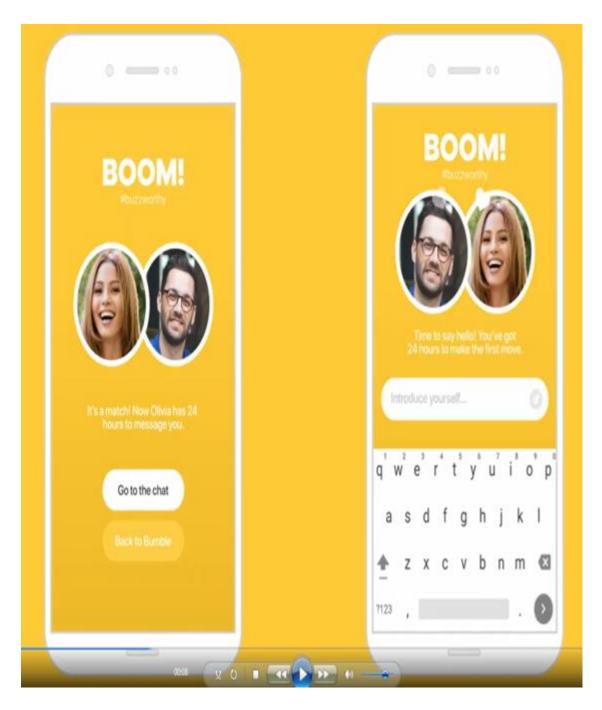
(*E.g.*, https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



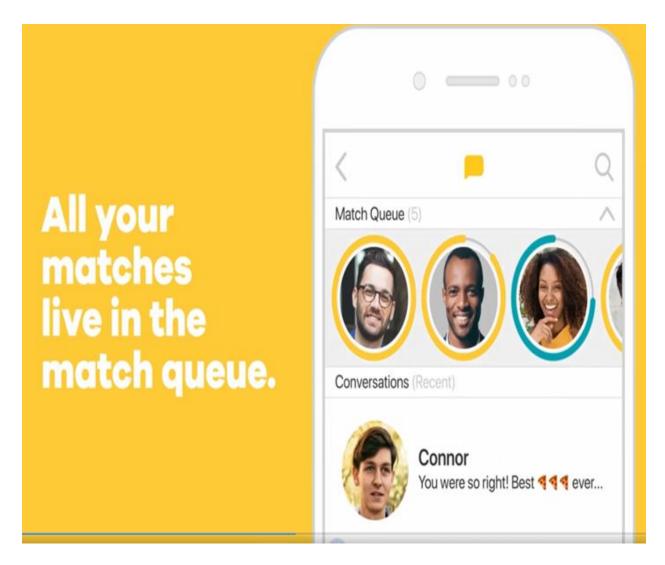
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

Match: When two users indicate they like each other's profiles with a slide.

(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).





How to beat Bumble's algorithm

Bumble's algorithm is reportedly mostly based on the Elo rating system.

The Elo rating system is a method for calculating the relative skill levels of players in zero-sum games.

Your opponent is the profile right in front of you. If you swipe left you win, if you swipe right then you lose. The "relative skill level" in Bumble is the level of appeal that your profile has:

- 1. Whether you are good looking
- 2. Or, you have a great career
- 3. Or, a great personality

Or, a combination of all three. But since there isn't much text to type on our profiles, it's mostly just a combination of the first two.

So your Elo score is based on:

- 1. The number of people that you swiped left on
- 2. The number of people that you swiped right on,
- 3. The number of people that swiped left on you
- 4. The number of people that swiped right on you
- (*E.g.*, https://www.reddit.com/r/Bumble/comments/eo6f9j/how to beat bumbles algorithm/ (published January 13, 2020)).
- 51. Plaintiff has been damaged as a result of Defendant's infringing conduct. Defendant is thus liable to Plaintiff for damages in an amount that adequately compensates Plaintiff for such Defendant's infringement of the '665 Patent, *i.e.*, in an amount that by law cannot be less than would constitute a reasonable royalty for the use of the patented technology, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.
- 52. To the extent marking is required, VCA has complied with all marking requirements.

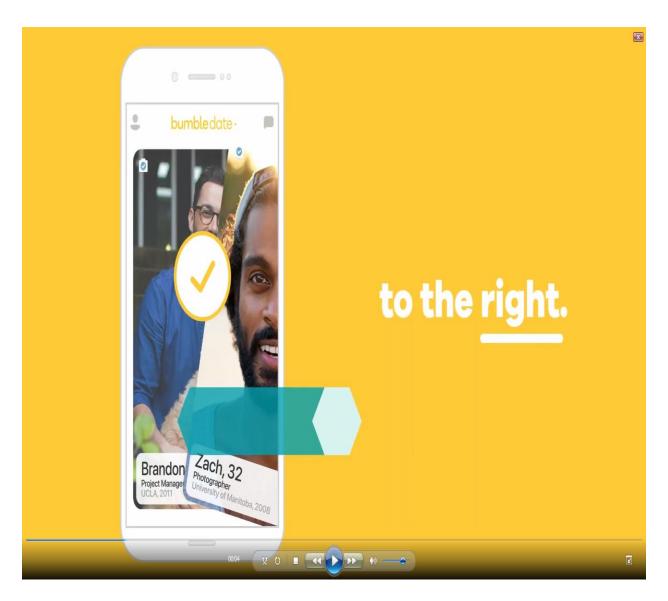
V. <u>COUNT III</u> (PATENT INFRINGEMENT OF UNITED STATES PATENT NO. 10,339,576)

53. Plaintiff incorporates the above paragraphs herein by reference.

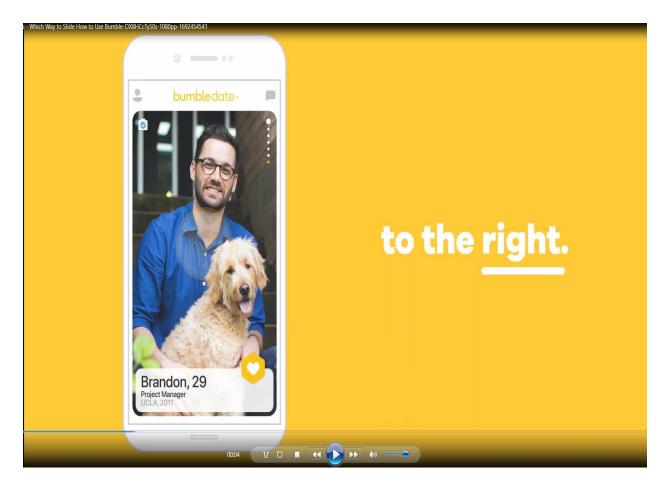
- 54. On July 2, 2019, United States Patent No. 10,339,576 ("the '576 Patent") was duly and legally issued by the United States Patent and Trademark Office. The '576 Patent is titled "Revenue-Generating Electronic Multi-Media Exchange and Process of Operating Same." A true and correct copy of the '576 Patent is attached hereto as Exhibit C and incorporated herein by reference.
- 55. VCA is the assignee of all right, title, and interest in the '576 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the '576 Patent. Accordingly, VCA possesses the exclusive right and standing to prosecute the present action for infringement of the '576 Patent by Defendant.
- 56. The application leading to the '576 patent was filed September 9, 2016, which was a continuation of application no. 13/679,659, which issued as United States Patent No. 9,477,665, which was a continuation of application no. 14/308,064 which issued as the '480 Patent. (Ex. C at cover). The '576 patent was first assigned to Virtual Creative Artists, LLC. (*Id.*).
- VCA incorporates the background and discussion of the invention in Paragraphs 11-18. Furthermore claim 1 involves a system for generating multimedia content. The claim requires, among other things, the automatic generation of multimedia content for view on a plurality of user devices. The claim requires that the content be generated in a very specific way by applying an electronic filter to a plurality of electronic media submissions stored on one or more database, the filter having criteria associated with one or more users. This allows automatic generation of multimedia content in a much quicker and easier fashion based on specific user criteria. There is nothing abstract about this very particular, unconventional, and non-routine system for the

generation of multimedia content as specifically claimed and there is no risk of preempting creating and distribution contention generally, or even within the context of the Internet.

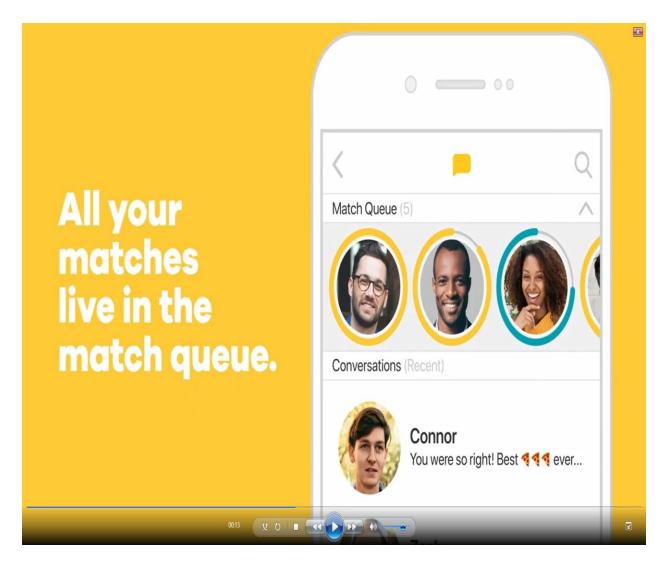
- 58. <u>Direct Infringement.</u> Upon information and belief, Defendant has been directly infringing claims 17 of the '576 Patent in Texas, and elsewhere in the United States, by employing a computer-based system using https://bumble.com/ ("Accused Instrumentality") (*e.g.*, https://bumble.com/).
- 59. The Accused Instrumentality uses a computer-based system for its Bumble app, website and platform, for example to enable the provision of personalized profile feeds that show users multimedia content including selected multimedia profiles of other users, for dating, business, and friendship purposes, based, *inter alia*, on user-selected preferences and filters, as well as based on algorithmic user scoring that is maintained as proprietary by Bumble Inc. Users can mutually form "matches" through mutually selecting each other from the users' respective profile feeds, and can have conversations with those they "match" with. Bumble, during the relevant time period, took advantage of multiple cloud server providers jointly used for Bumble and its sister app Badoo, as discussed above, as well as scalability within its cloud server providers, employing separate server subsystems for all its meaningfully different functions, such as those indicated below. Bumble uses and has used during the relevant time period, numerous different networks, IP addresses, and providers for, *inter alia*, cloud hosting, content delivery networks (CDNs), and a variety of networks, thereby using separate server subsystems for all its meaningfully different functions, such as those indicated below.



(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).

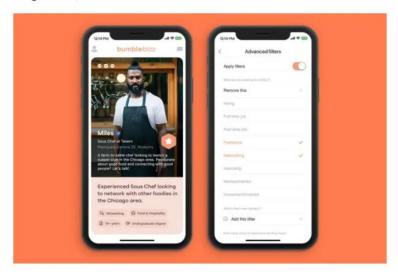
Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

Sarah Perez @sarahintampa / 12:02 PM EST • December 18, 2018

| Comment | Co

(*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



(*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).

On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

(*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).

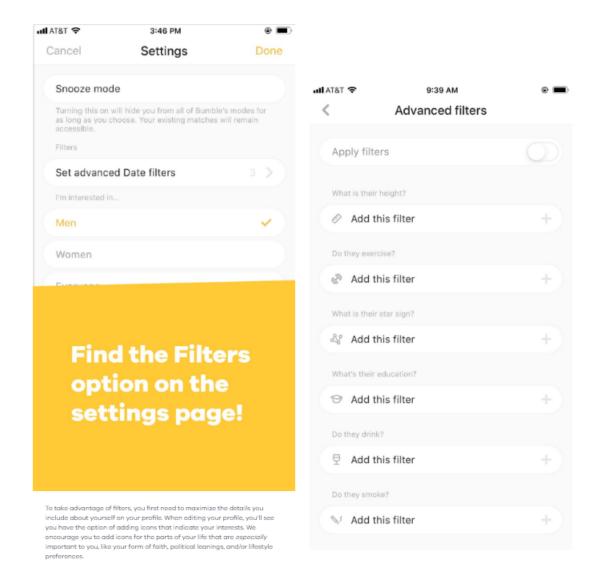
How To

Find the Kind of Relationship You Want with Filters

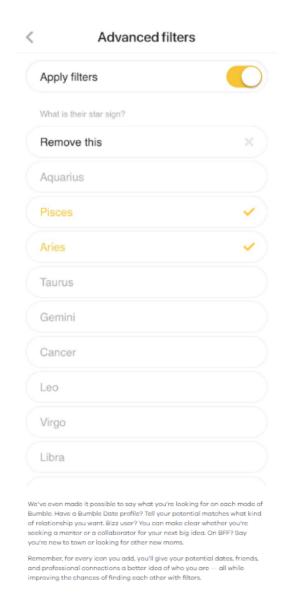


At Bumble, we're committed to introducing you to exceptional people in your area. While we'd love to connect you with every single person, we understand that your time is precious. For a more targeted approach to your relationships, we recently designed the ability for you to show others what you're passionate about and filter for like-minded individuals.

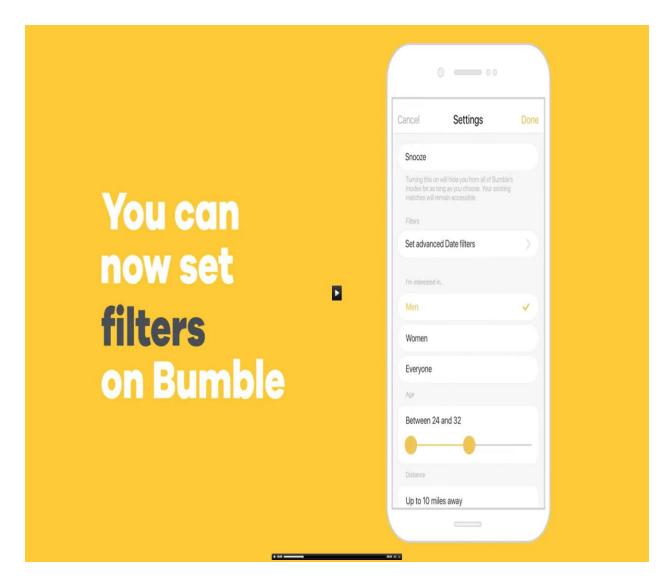
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



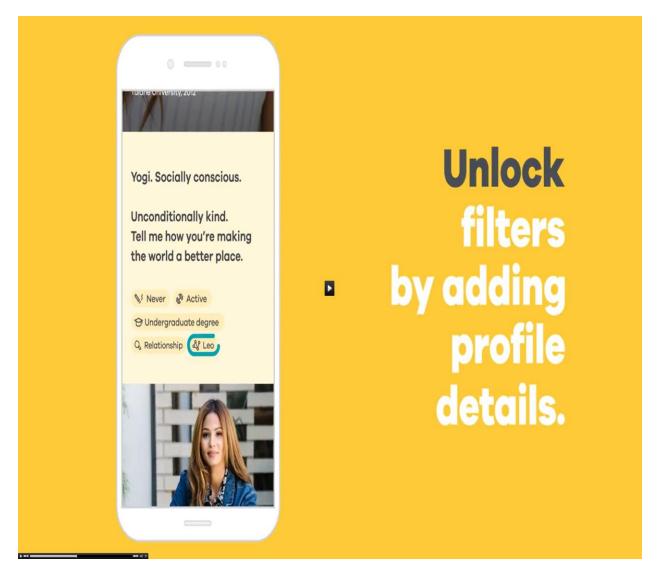
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

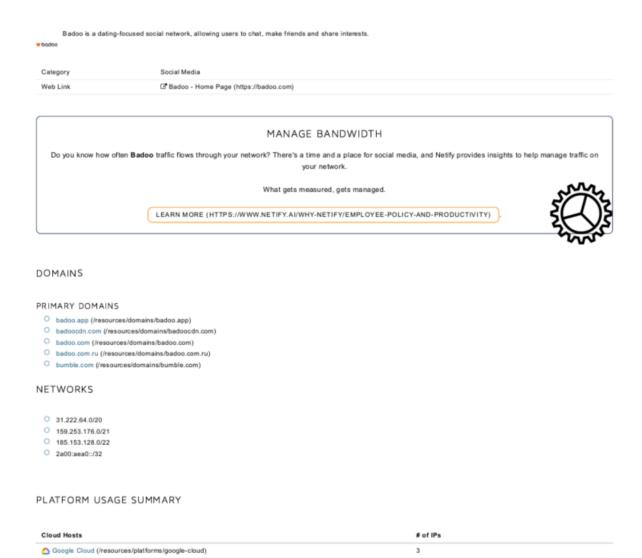


(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

Badoo remains a crucial part of the Bumble offering today. As alluded to earlier, it has more than 2x the number of MAUs and brought in more revenue as recently as 2019. Beyond bolstering the numbers, Bumble and Badoo are interlaced in a few key ways:

 Shared infrastructure. The Bumble and Badoo apps share a common infrastructure, which allows insights to be shared between apps.

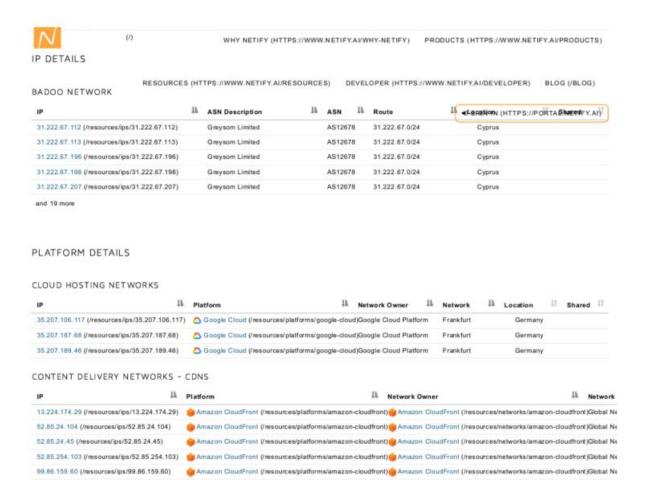
(E.g., https://www.generalist.com/briefing/bumble-ipo (published February 10, 2021)).



(E.g., https://www.netify.ai/resources/applications/badoo (retrieved August 19, 2023)).

@ Amazon CloudFront (/resources/platforms/amazon-cloudfront)

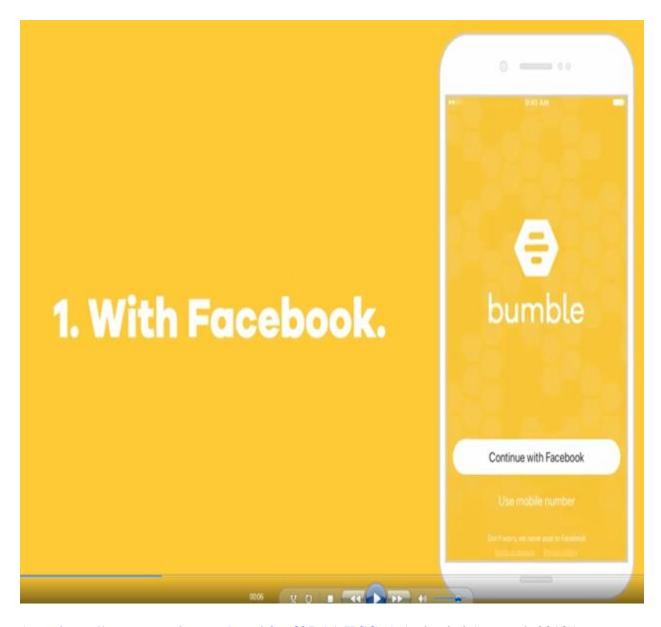
of IPs



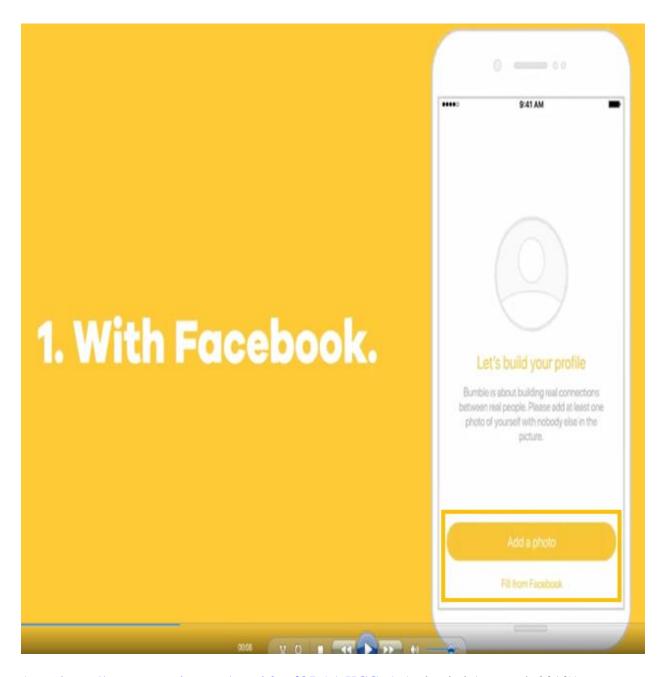
(E.g., https://www.netify.ai/resources/applications/badoo (retrieved August 19, 2023)).

60. The Accused Instrumentality includes an electronic media submissions server subsystem, having one or more data processing apparatus and one or more database stored a non-transitory medium in order to process and store received submissions from users, for example as discussed above in connection with the Bumble platform, app, website and profile feeds. These submissions, which include *e.g.*, photos, photo ordering selections, prompt selections, prompt responses, and user attributes, to be provided to the Bumble platform via a submissions electronic interface, accessible for example by logging in and selecting an option to upload content or import content from a third party application (such as Facebook), or by selecting applicable areas of the screen within the Bumble app and uploading content, or by holding and dragging, configured to

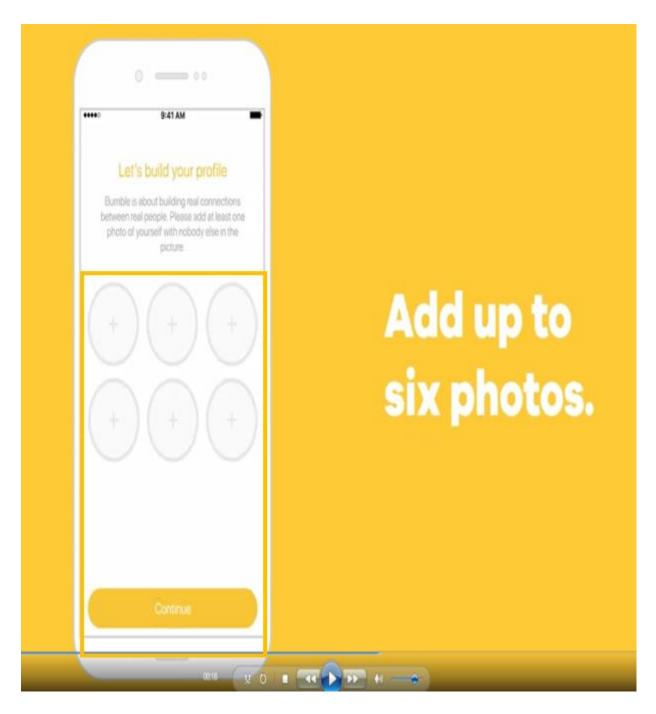
receive such electronic media submissions and their arrangement information, (*e.g.*, photos, photo ordering selections, prompt selections, prompt responses, and user attributes) from a plurality of submitters (*e.g.*, Bumble users with accompanying created accounts and profiles) over a public network (*e.g.*, the Internet) and stored, via an uploading process, in said electronic media submissions database for use in distribution to other users. Such submissions comprising photos, photo ordering selections, prompt selections, prompt responses, and/or user attributes, are made available via storage in the electronic media submissions database for use in distribution to other users, such as the general userbase of Bumble, as per a respective member's filter selections in conjunction with Bumble's proprietary algorithms as to which user profiles to provide on a given user's profile feed.



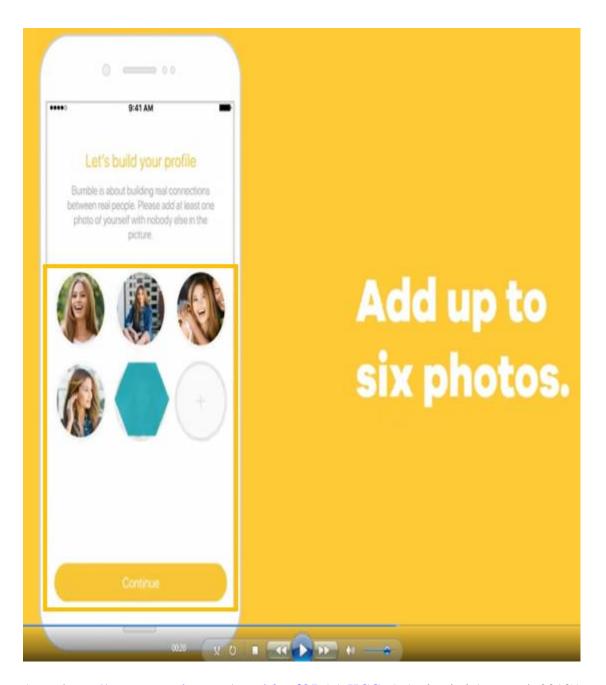
(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



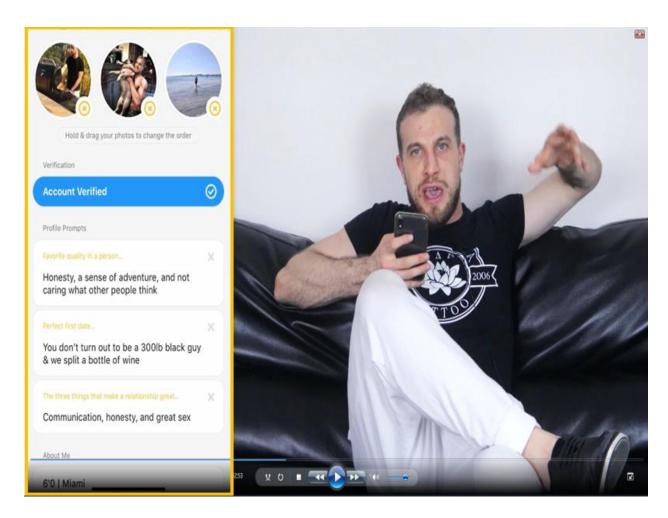
(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



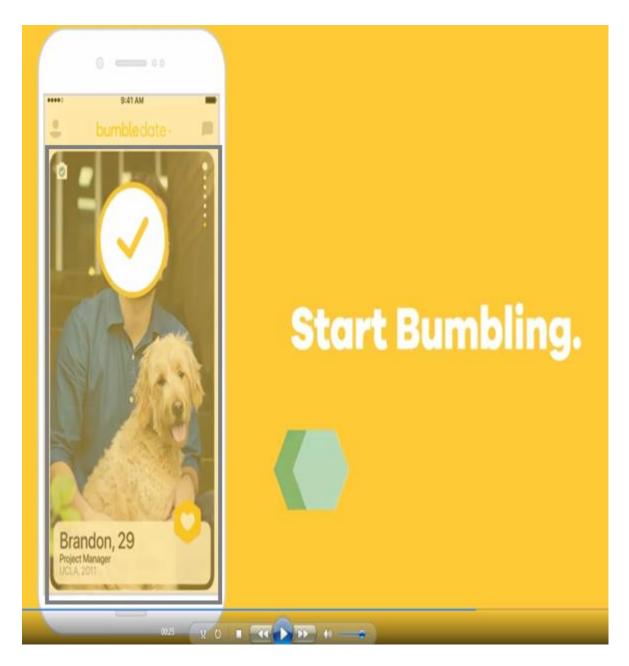
(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



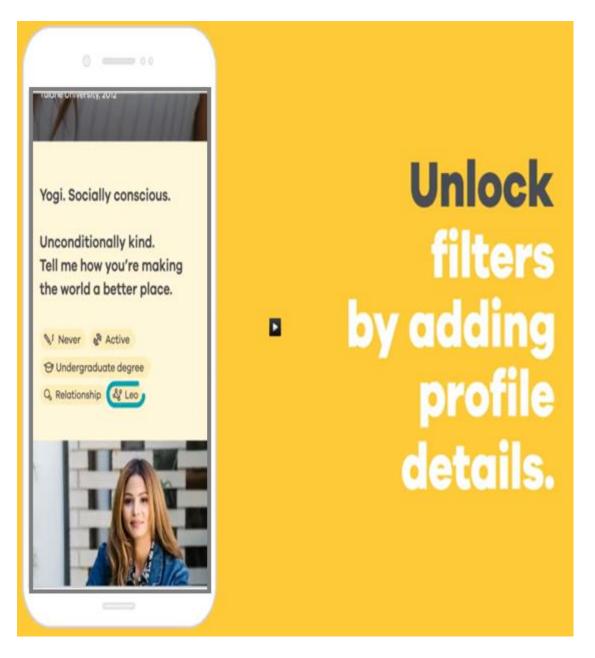
(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



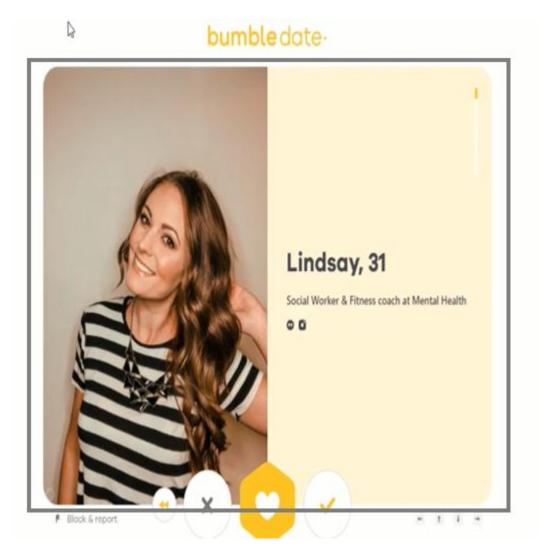
(E.g., https://www.youtube.com/watch?v=VsBGlXY3R6w (published March 2, 2020)).



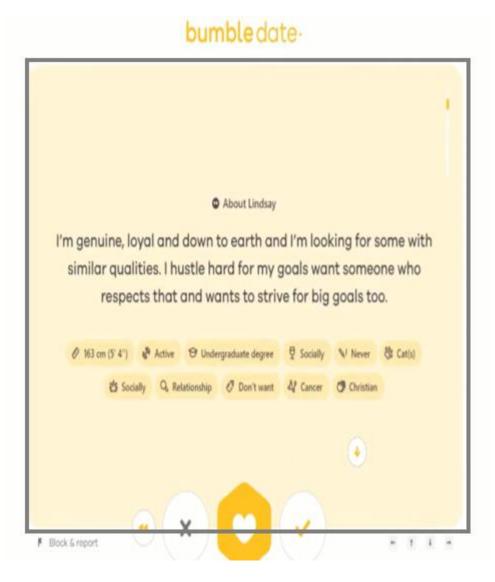
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



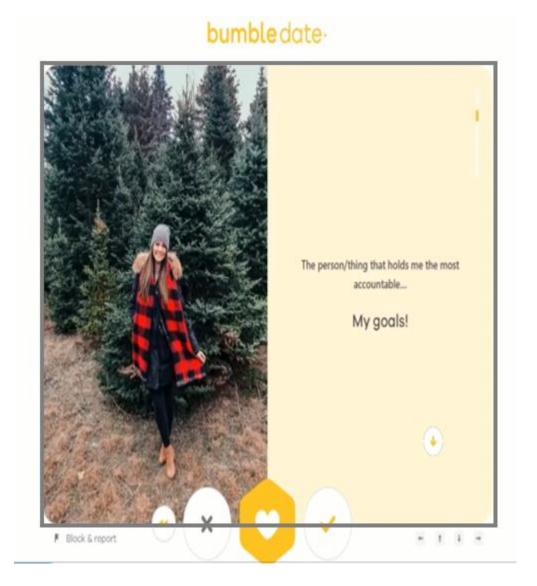
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



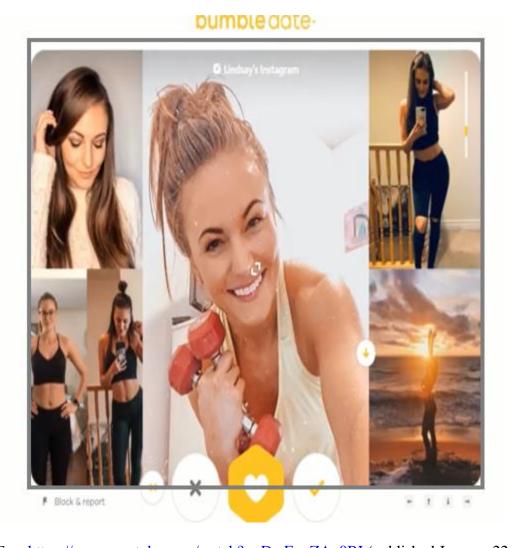
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



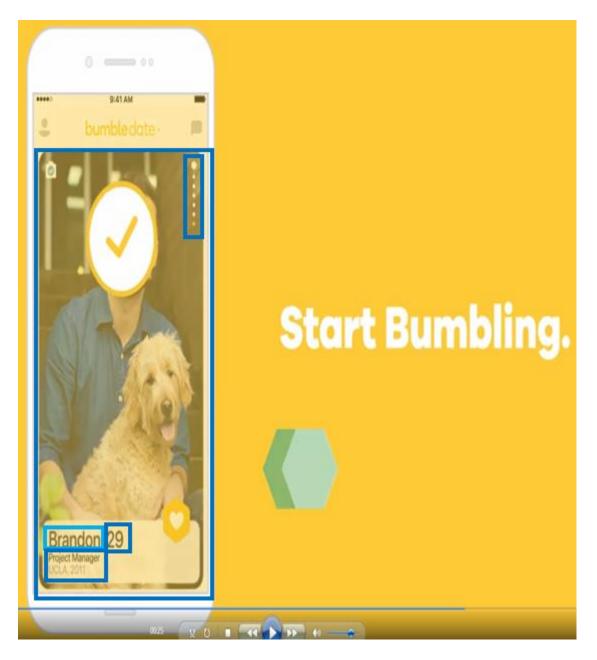
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

61. The stored electronic media submissions submitted via the Accused Instrumentality used by Bumble with respect to the first electronic media submission (*e.g.*, a submission comprising a profile made up of photos, photo ordering selections, prompt selections, prompt responses, and/or user attributes, submitted by a Bumble user) includes data identifying the submitter and data indicating content for each electronic media submission, *e.g.*, as shown below with a name identifying the submitter and ordered photos, prompt selections, prompt responses, and/or user attributes, along with navigation options as to further material indicating content. The stored electronic media submissions submitted via Accused Instrumentality used by Bumble, with

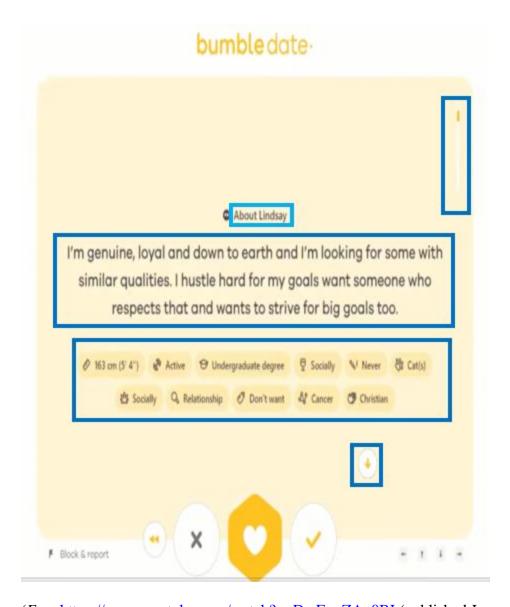
respect to the first electronic media submission (*e.g.*, a submission comprising a profile made up of photos, photo ordering selections, prompt selections, prompt responses, and/or user attributes, submitted by a Bumble user) further includes data identifying date and time associated with receipt of the first electronic media submission. This data identifying date and time associated with receipt of the first electronic media submission, while not displayed to users, is used by Bumble Inc., *inter alia*, to determine the frequency with which the first electronic media submission (*e.g.*, the user's profile) should be shown to other users, for example showing a relatively recently-provided or updated profile more frequently than a less recently-provided or updated profile.



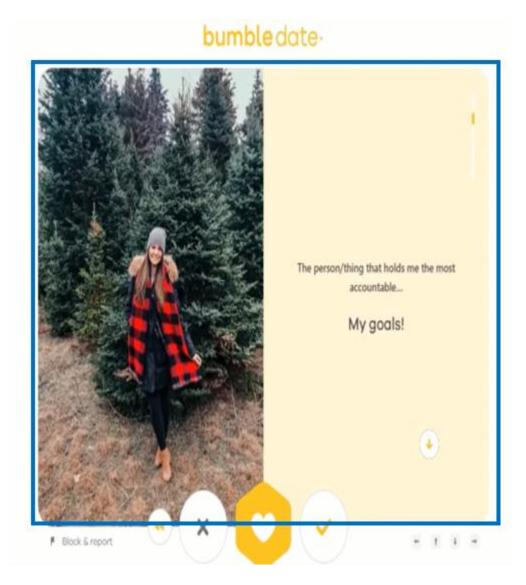
 $(\textit{E.g.}, \underline{\text{https://www.youtube.com/watch?v=fQRA1rKCGqA}} \ (uploaded \ August \ 4, \ 2018)).$



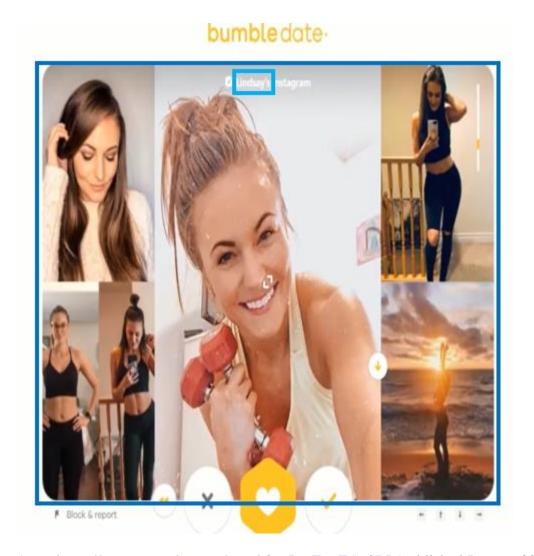
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

NEW PROFILES ARE ALSO SHOWN FIRSTNEW PROFILE BOOST

One way Bumble determines how popular a profile is by showing it to a large amount of users. It then assigns it a base score.

To do that with a new profile, its shown to a large amount of profiles while still new.

This will give them all the information that they need to rank it.

(*E.g.*, https://thepickuppros.com/online-dating/bumble-algorithm/ (indicated by Google as having a date of November 30, 2019)).



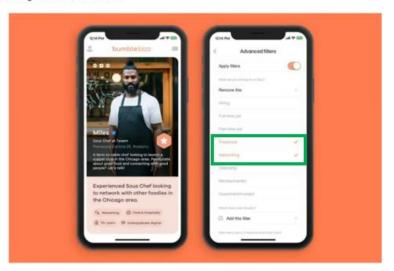
(E.g.,

https://www.reddit.com/r/Bumble/comments/87of0v/does_updating_your_profile_bump_you_up / (indicated by Google as having a date of March 28, 2018)).

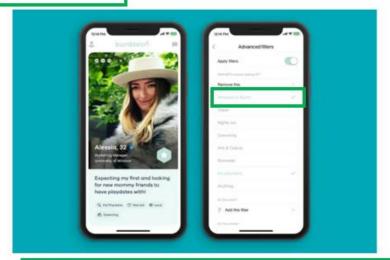
62. The Accused Instrumentality comprises one or more databases comprising criteria associated with one or more users of the plurality of users stored in such database. Such user database is stored in memory available through the Bumble platform, app, website and profile feeds' servers, for example as discussed above. Some examples of such criteria stored in such user database on the Bumble platform, app, website and profile feeds are selections of Bumble users with respect to acceptable user attributes of other users (*e.g.*, based on, *inter alia*, an age, a height, a physical activity level, a level of education, a drinking level, a smoking level, pet ownership information, a drug use level, an indication of dating seriousness, a family plans, a gender, a star sign, a religion, political leanings, activity interests, job-seeking status, industry, years of experience, and/or a location, which in turn affects which electronic media submissions, *e.g.*, profiles, appear on a given user's profile feed), as shown and discussed for example below.

Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

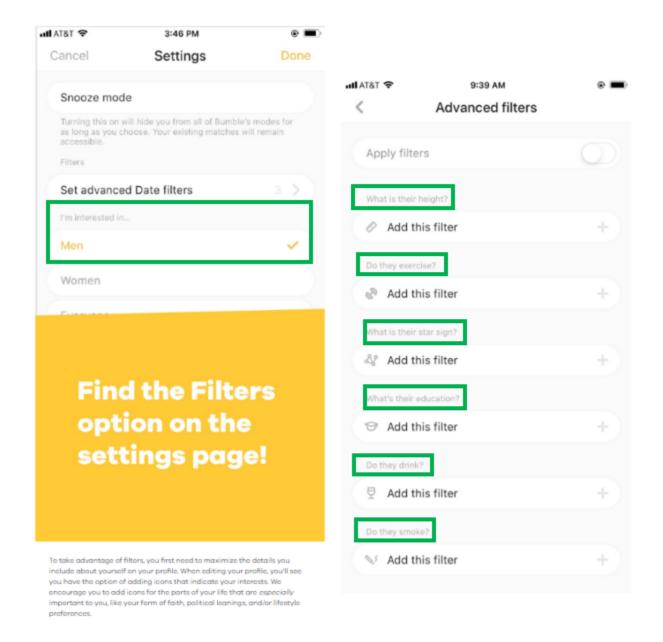
How To

Find the Kind of Relationship You Want with Filters

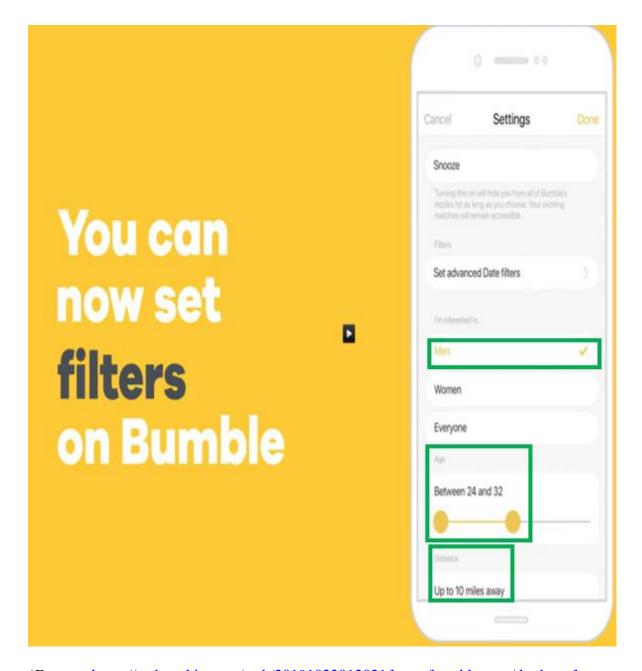


At Bumble, we're committed to introducing you to exceptional people in your area. While we'd love to connect you with every single person, we understand that your time is precious. For a more targeted approach to your relationships, we recently designed the ability for you to show others what you're passionate about and filter for like-minded individuals.

(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

63. The Accused Instrumentality employs an electronic multimedia creator server subsystem operatively coupled to the electronic media submissions server subsystem, necessarily having one or more data processing apparatus in order to manage content, and an electronic creator multimedia database stored on a non-transitory medium, configured to select and retrieve a

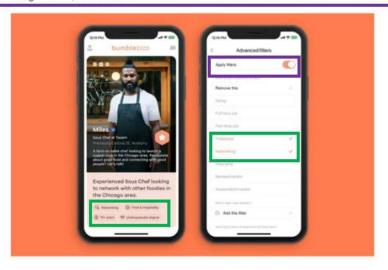
plurality of electronic media submissions (e.g., profiles of users with associated multimedia content) from the electronic media submissions database using an electronic content filter located on the electronic multimedia creator server. As can be seen below, such electronic content filter as is used by Bumble Inc. is based at least in part on at least one of the one or more criteria, (e.g., based on, inter alia, an age, a height, a physical activity level, a level of education, a drinking level, a smoking level, pet ownership information, a drug use level, an indication of dating seriousness, a family plans, a gender, a star sign, a religion, political leanings, activity interests, job-seeking status, industry, years of experience, and/or a location, which in turn affects which electronic media submissions, e.g., profiles, appear on a given user's profile feed), as shown and discussed for example below. Bumble uses function-specific subsystems, for example as discussed below. Such electronic content filter is used by the Bumble platform, website, app and profile feeds to develop multimedia content (e.g., profiles of users associated with photos, text, and other media content as discussed and shown above) to be electronically available for viewing on user devices (e.g., devices such as computers and/or smart phones incorporating browsers or apps), including at least one user device associated with the first user.

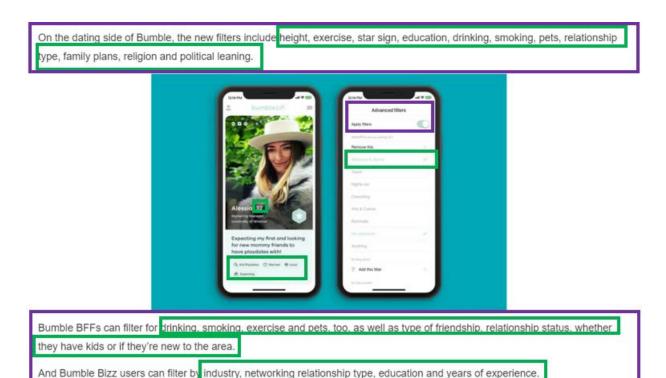
Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

Sarah Perez @sarahintampa / 12:02 PM EST • December 18, 2018

| Comment | Co

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.





Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

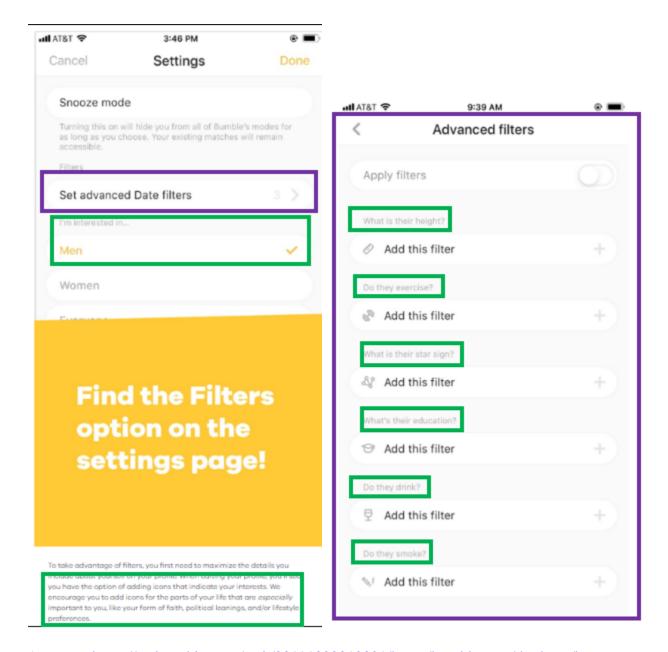
How To

Find the Kind of Relationship You Want with Filters

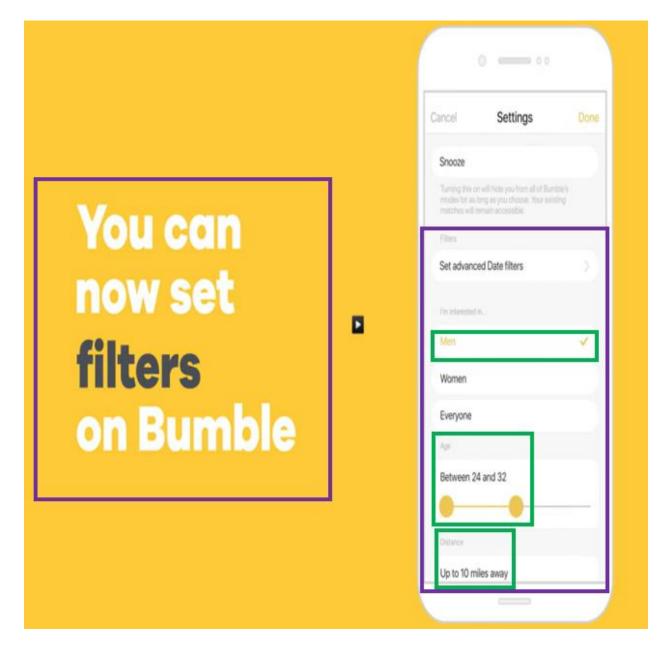


At Bumble, we're committed to introducing you to exceptional people in your area. While we'd love to connect you with every single person, we understand that your time is precious. For a more targeted approach to your relationships, we recently designed the ability for you to show others what you're passionate about and filter for like-minded individuals.

(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



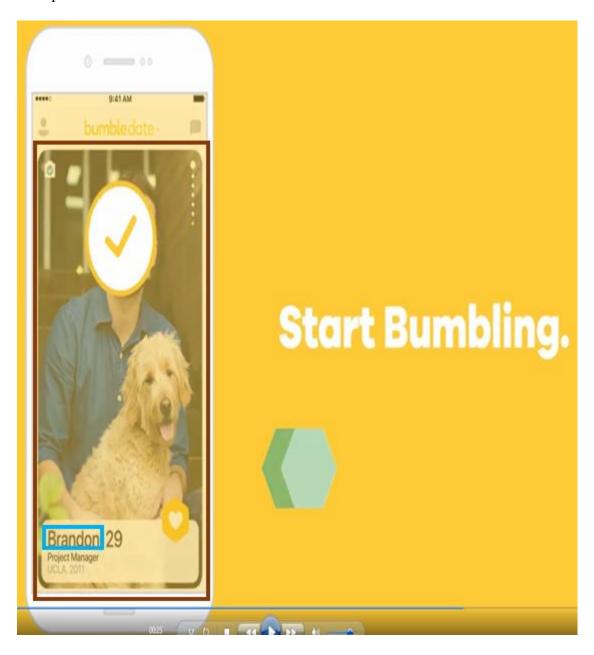
(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).



(*E.g.*, https://web.archive.org/web/20191022012021/https:/bumble.com/the-buzz/how-to-use-filters-on-bumble (archived October 22, 2019)).

64. Such electronic content filter is used by the Bumble to develop multimedia content (e.g., various content as discussed above associated with user profiles) to be electronically available for viewing on user devices (e.g., devices such as smart phones or computers incorporating browsers or apps) wherein the data identifying a respective user (e.g., a name) is

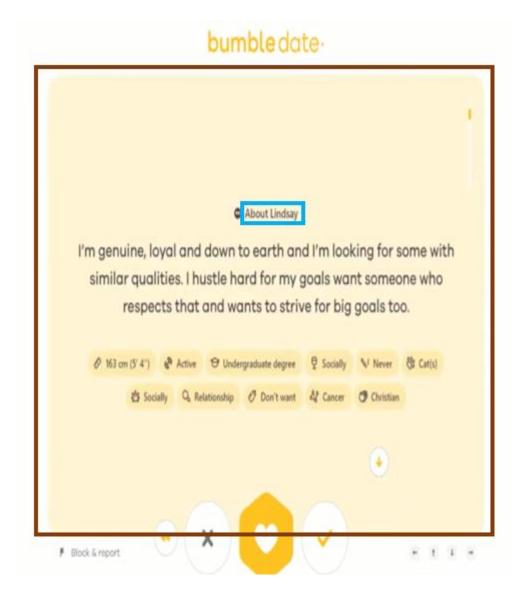
maintained with each selected and retrieved submission within the multimedia content, for example as shown below.



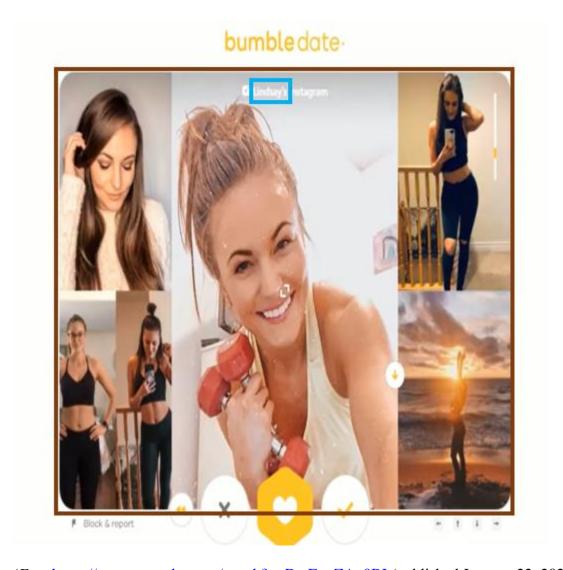
(E.g., https://www.youtube.com/watch?v=fQRA1rKCGqA (uploaded August 4, 2018)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



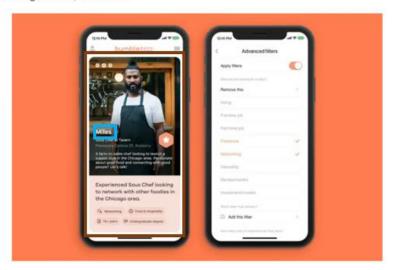
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



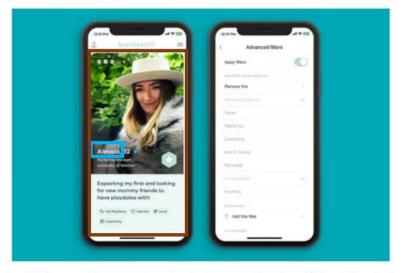
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

Bumble now lets you filter potential matches on Bumble Date, Bizz and BFF

"We've been working internally and with our users to create just the right mix of filters that allow for deeper, more meaningful connections and we're very pleased with what we've developed," said Alexandra Williamson, Bumble chief of brand, in a statement about the launch. "Whether you're looking for a new job in media, a new mom friend or a date with a Sagittarius who loves live music, Bumble Filters enable you to tailor your experience in a way that ultimately gives you more control of the kinds of relationships you're looking to build," she said.



On the dating side of Bumble, the new filters include height, exercise, star sign, education, drinking, smoking, pets, relationship type, family plans, religion and political leaning.



Bumble BFFs can filter for drinking, smoking, exercise and pets, too, as well as type of friendship, relationship status, whether they have kids or if they're new to the area.

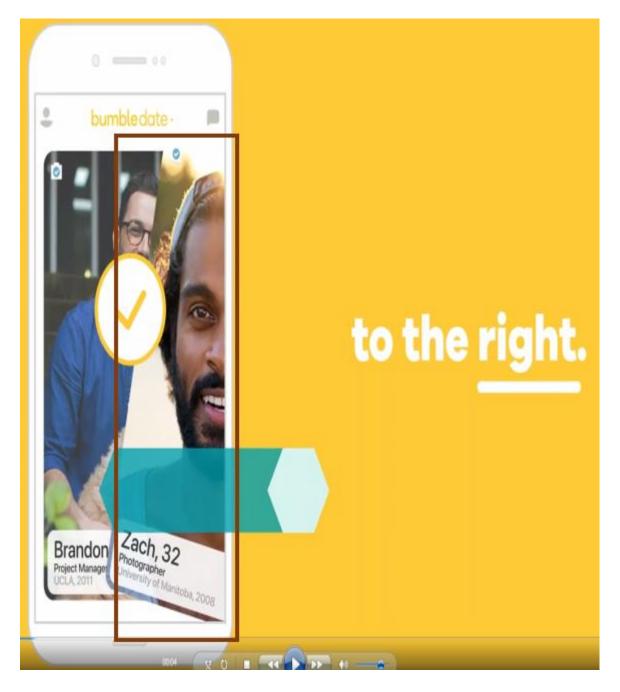
And Bumble Bizz users can filter by industry, networking relationship type, education and years of experience.

Bumble hopes filters will be an additional stream of revenue for its business, which it said in September was on track for a revenue run rate to \$200 million per year. Bumble now claims 46 million users.

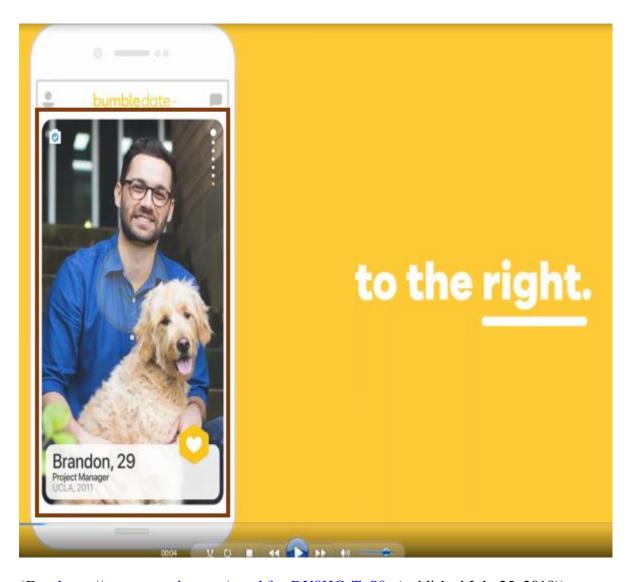
The company says all users will receive two free filters in Bumble Date, Bumble BFF and Bumble Bizz, but additional filters will have to be purchased through Bumble Boost — the premium upgrade that also allows you to see who liked you, extend your matches and rematch expired connections. (Boost's pricing varies based on the time frame — a week, a month, etc. Its weekly plan is \$8.99/week, currently.)

- (*E.g.*, https://techcrunch.com/2018/12/18/bumble-now-lets-you-filter-potential-matches-on-bumble-date-bizz-and-bff/ (published December 18, 2018)).
- 65. The Accused Instrumentality employs an electronic release subsystem operatively coupled to the electronic multimedia creator server subsystem, necessarily having one or more third data processing apparatus in order to serve profiles and associated content to Bumble users, configured to make the multimedia content electronically available for viewing on a plurality of user devices corresponding to a plurality of other filter-compatible users of the Bumble platform selected to receive the user's profile within their respective Bumble profile feeds. For example, as shown below, multimedia content associated with other users' profiles is provided on a

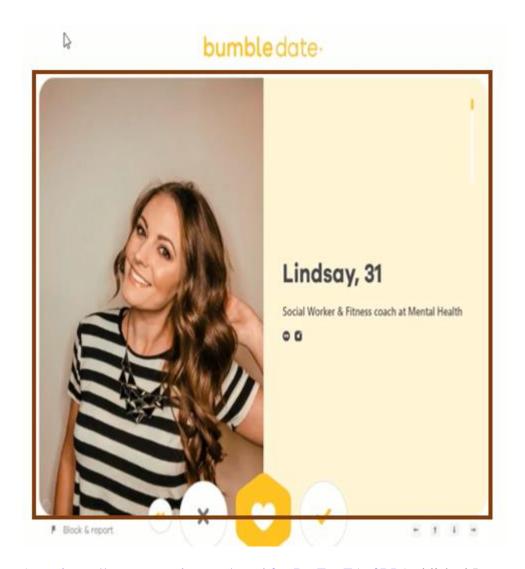
representative users' devices in response to such users logging in to Bumble and viewing their Bumble profile feed. Bumble uses function-specific subsystems, for example as discussed below.



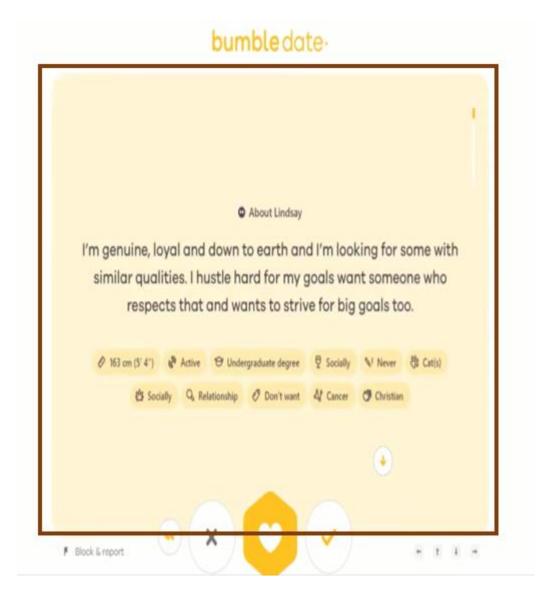
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



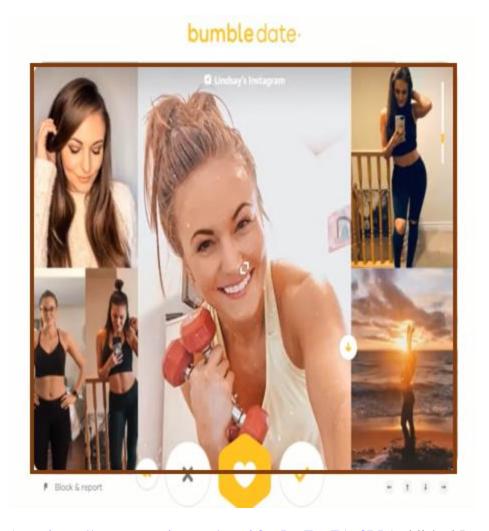
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



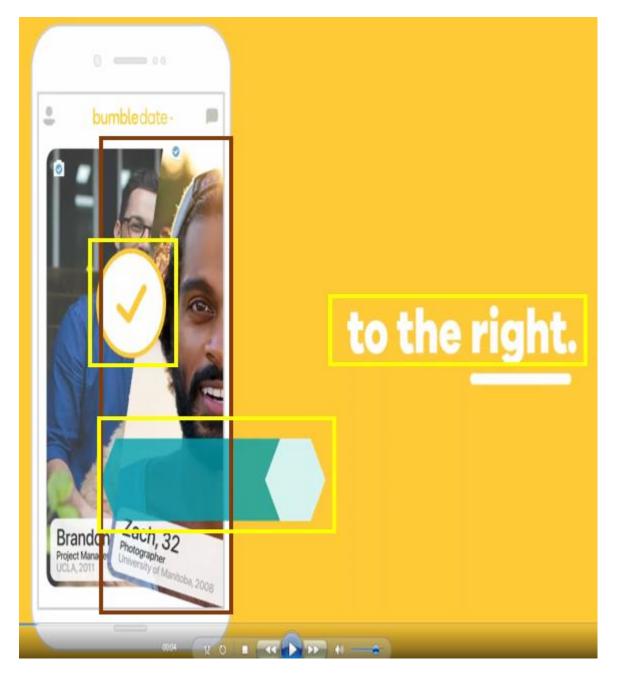
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).



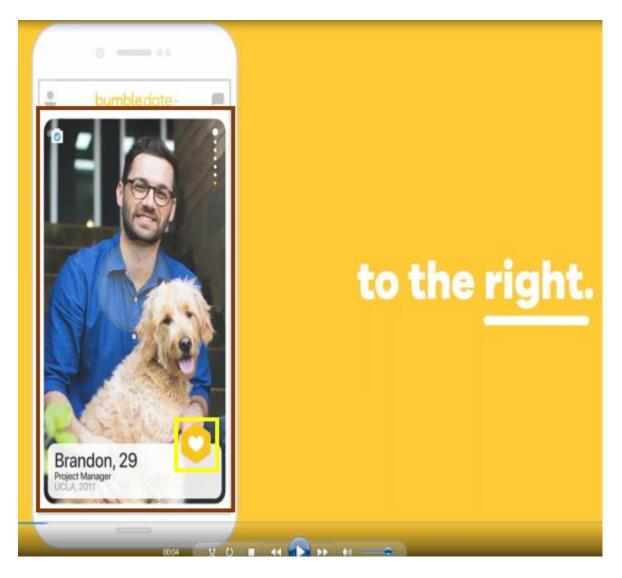
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

66. The Accused Instrumentality comprises an electronic voting subsystem, necessarily having one or more data processing apparatus in order to track voting, configured to enable a user to electronically vote for (e.g., by the user's choices with respect to swiping left/rejecting, swiping right/liking, or superliking) an electronically available multimedia content (e.g., a multimedia user profile of another user). As can be seen below, the option to vote for electronically available multimedia content (e.g., a user profile) is made available to (plural) users (including at least a third user) via the respective users' options to like or reject or "superlike" (yellow heart) the multimedia content, and this voting behavior is tracked and associated with the multimedia content and/or submission so as to allow for matching (or precluding the possibility of matching) and

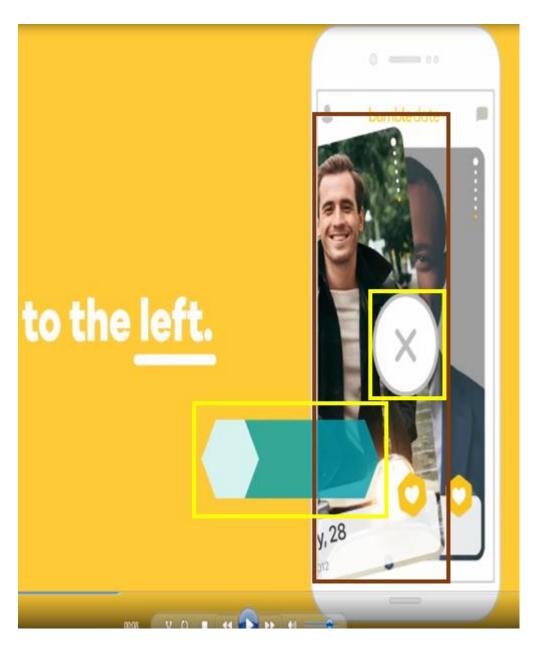
joining a match queue. On information and belief, while Bumble's user rating system is proprietary, such user votes are used to define a user score for the respective profile (*e.g.*, an ELO-style user score) which in turn is used to determine which other Bumble users a profile should be shown to. Bumble uses function-specific subsystems, for example as discussed below.



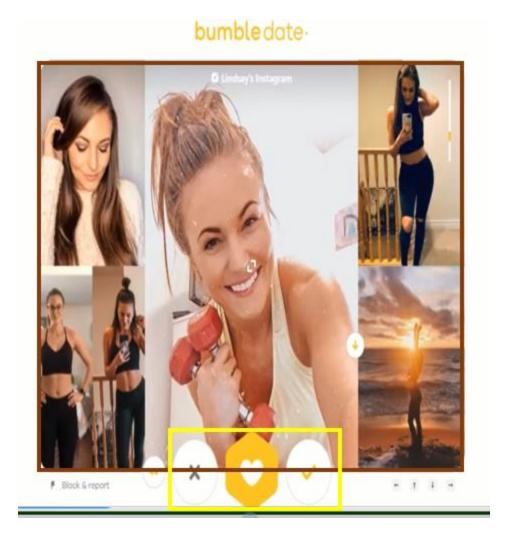
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



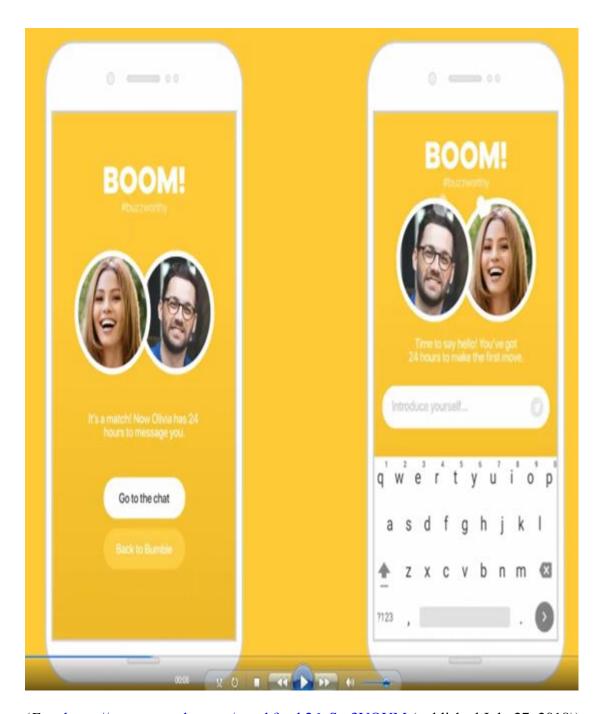
(E.g., https://www.youtube.com/watch?v=DX8HCcTyS0s (published July 25, 2018)).



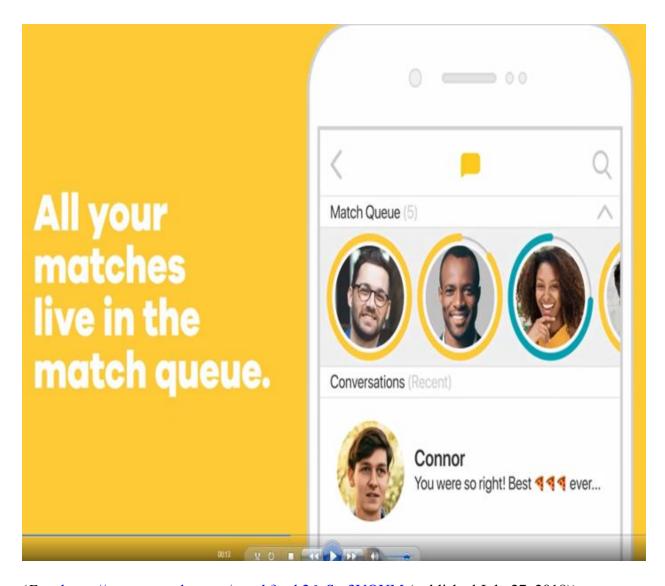
(E.g., https://www.youtube.com/watch?v=DwEp_ZAv0BI (published January 22, 2020)).

Match:
When two users indicate they like each other's profiles with a slide.

(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).



(E.g., https://www.youtube.com/watch?v=k26xSm3VQUM (published July 27, 2018)).





How to beat Bumble's algorithm

Bumble's algorithm is reportedly mostly based on the Elo rating system.

The Elo rating system is a method for calculating the relative skill levels of players in zero-sum games.

Your opponent is the profile right in front of you. If you swipe left you win, if you swipe right then you lose. The "relative skill level" in Bumble is the level of appeal that your profile has:

- 1. Whether you are good looking
- 2. Or, you have a great career
- 3. Or, a great personality

Or, a combination of all three. But since there isn't much text to type on our profiles, it's mostly just a combination of the first two.

So your Elo score is based on:

- 1. The number of people that you swiped left on
- 2. The number of people that you swiped right on,
- 3. The number of people that swiped left on you
- 4. The number of people that swiped right on you
- (*E.g.*, https://www.reddit.com/r/Bumble/comments/eo6f9j/how to beat bumbles algorithm/ (published January 13, 2020)).
- 67. Plaintiff has been damaged as a result of Defendant's infringing conduct. Defendant is thus liable to Plaintiff for damages in an amount that adequately compensates Plaintiff for such Defendant's infringement of the '576 Patent, *i.e.*, in an amount that by law cannot be less than would constitute a reasonable royalty for the use of the patented technology, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.
- 68. To the extent marking is required, VCA has complied with all marking requirements.

VI. JURY DEMAND

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

VII. PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that the Court find in its favor and against

Defendant, and that the Court grant Plaintiff the following relief:

- a. Judgment that one or more claims of United States Patent No. 9,501,480 have been infringed, either literally and/or under the doctrine of equivalents, by Defendant;
- b. Judgment that one or more claims of United States Patent No. 9,477,665 have been infringed, either literally and/or under the doctrine of equivalents, by Defendant;
- c. Judgment that one or more claims of United States Patent No. 10,339,576 have been infringed, either literally and/or under the doctrine of equivalents, by Defendant;
- d. Judgment that Defendant account for and pay to Plaintiff all damages to and costs incurred by Plaintiff because of Defendant's infringing activities and other conduct complained of herein, and an accounting of all infringements and damages not presented at trial;
- e. That Plaintiff be granted pre-judgment and post-judgment interest on the damages caused by Defendant's infringing activities and other conduct complained of herein; and
- f. That Plaintiff be granted such other and further relief as the Court may deem just and proper under the circumstances.

September 15, 2023

DIRECTION IP LAW

/s/ David R. Bennett

David R. Bennett (*Admitted to the U.S. Dist. Ct. for the W.D. Texas*) Direction IP Law P.O. Box 14184 Chicago, IL 60614-0184

(312) 291-1667 dbennett@directionip.com

Attorney for Plaintiff Virtual Creative Artists, LLC