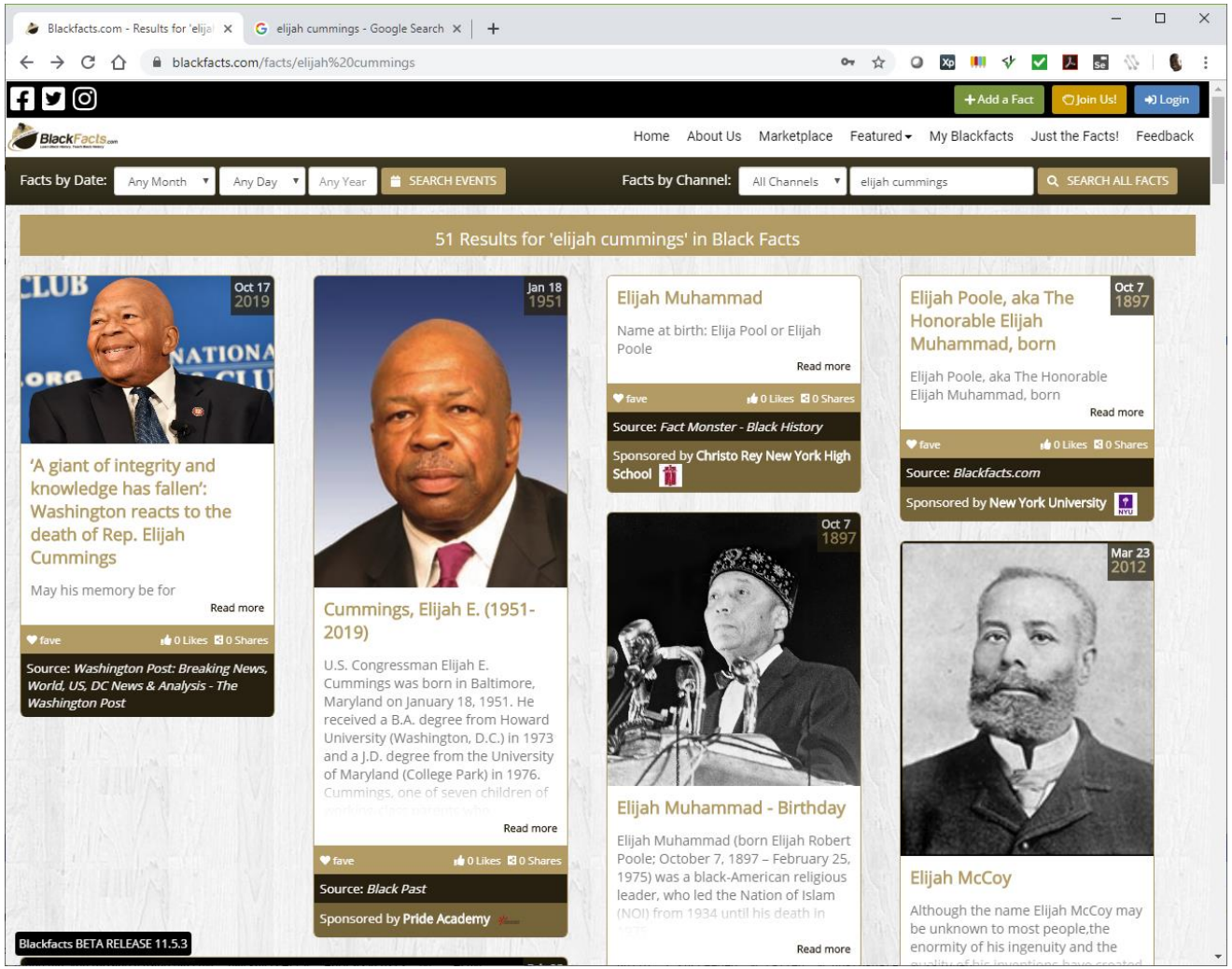
BlackFacts.com

Learn Black History. Teach Black History

Fact AI Overview

Current and Future Usage of AI Technologies in Blackfacts

Fact Linkage

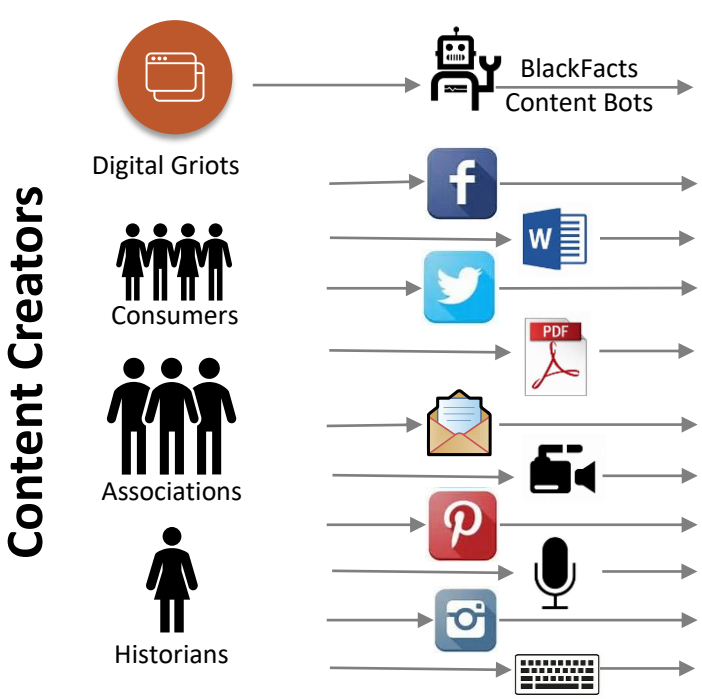


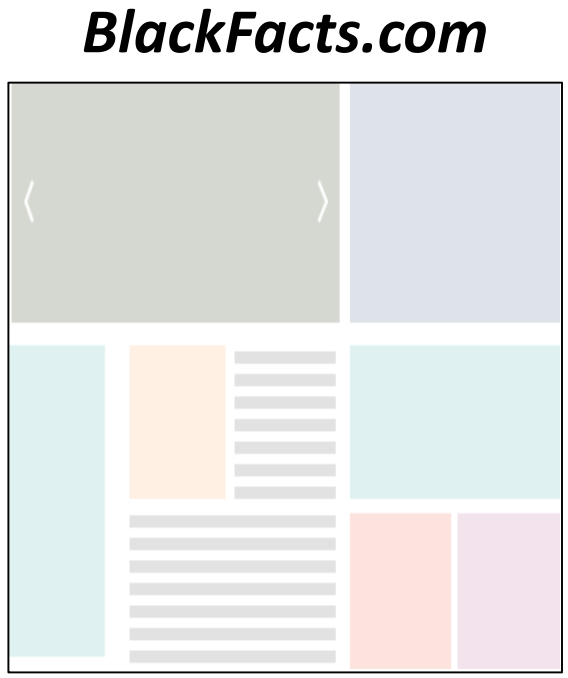
A core feature of Blackfacts is the linkage between 'Fact Cards' based on various types of searches.

This linkage is based on common factors between facts, and is the foundation of Blackfacts' efficacy as an educational tool, as it mirrors the human mind's process of associating pieces of information with each other.

This linkage can be based on both human and machine knowledge, but Blackfacts' future as The Black Wikipedia relies on evolving the machine learning functionality to a level where it will be able to categorize and link millions of facts accurately with minimal human intervention required.

Fact Sources





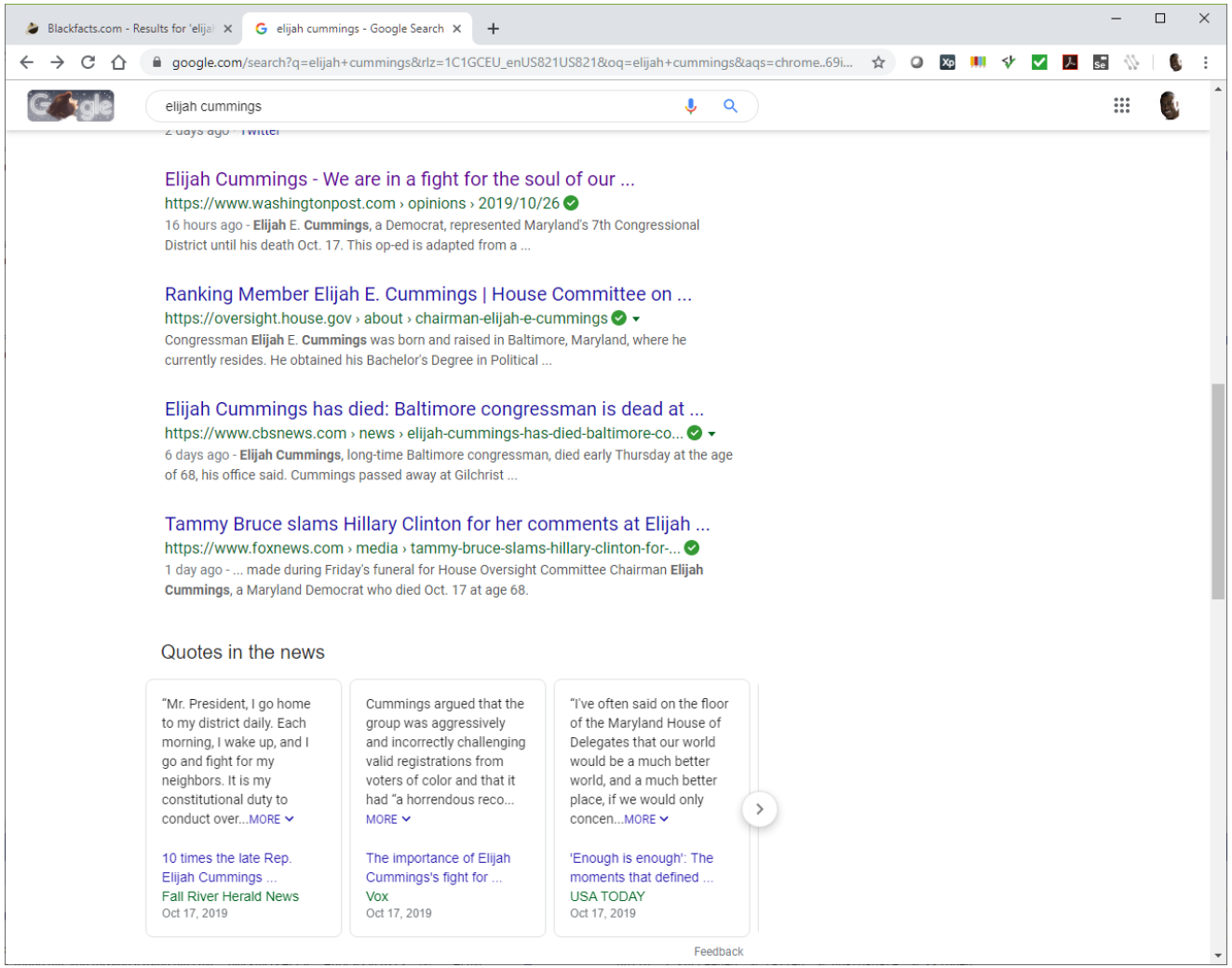
Black Facts content can come from a variety of sources, including:

- Existing Historical Site Urls
- Online News Sites
- Member Uploaded Files
- Member Social Media Posts
- Member Emails
- Member Recorded Media

Regardless of the source, the text of the content is extracted as the 'lowest common denominator' required by the AI systems currently in use (image recognition etc is in the future) and analyzed by the AI systems to identify people, places, organizations, concepts, etc that can be used to link the Facts.

Fact submitters can also add additional people, places, etc into Blackfacts to augment the frequent lack of the AI systems recognizing them, as well as the AI systems linkages being limited to the submitted text (i.e. the text not mentioning well-known organization affiliations).

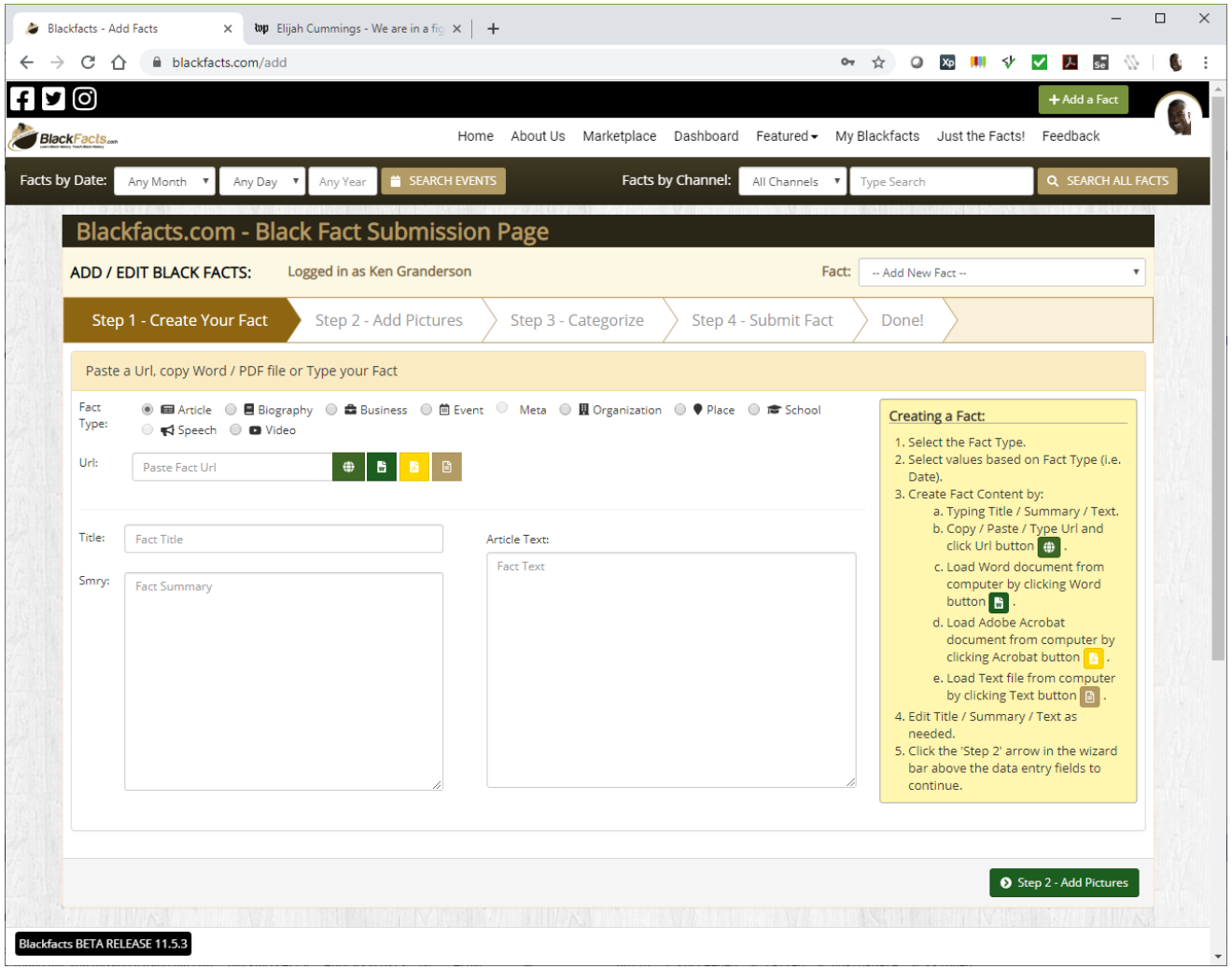
Add A Fact (Crowdsourcing Black History)



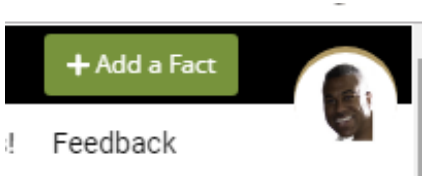
Currently, the most common Fact sources are online articles about historical or current people, events and organizations.

The image shows a Google search initiated outside of Blackfacts.com. Currently under development are in-site search tools as well as a browser extension that would enable submitting a Fact from any web page currently being viewed.

Add A Fact - Create



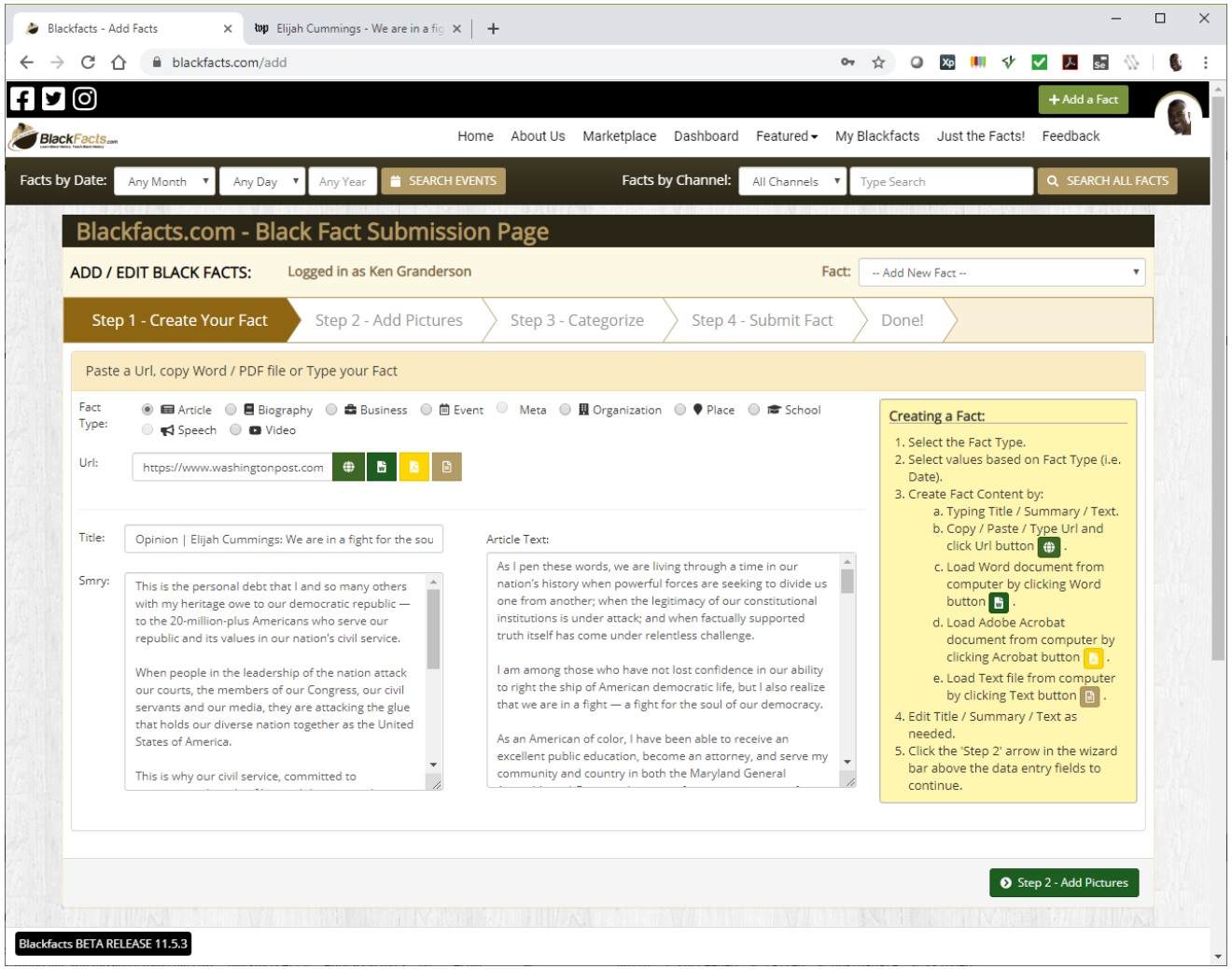
This is the Add A Fact page, accessed by clicking the



button in the top right of any Blackfacts page, and logging in if necessary.

The 4 buttons by the ‘Url’ field enable adding Facts by pasting in a Url or uploading a Word, PDF or Text file. This presentation will demonstrate the Url scenario.

Add A Fact - Create



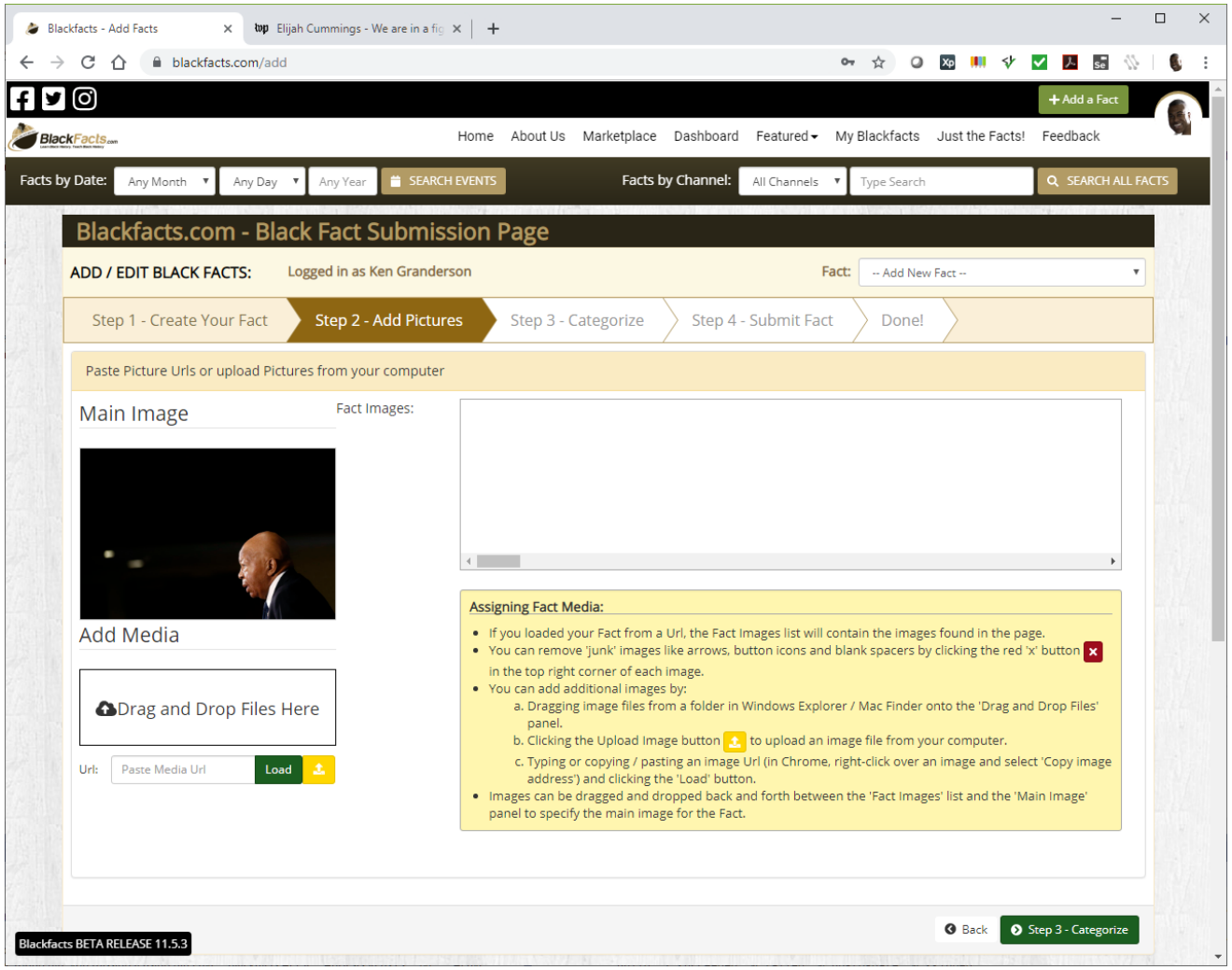
This is the result of pasting the url https://www.washingtonpost.com/opinions/elijah-cummings-we-are-in-a-fight-for-the-soul-of-our-democracy/2019/10/26/cac744be-f4fd-11e9-a285-882a8e386a96_story.html into the 'Url' field, and clicking the green globe button.

This submits the url to Aylien.com, one of 2 external services Blackfacts uses for AI analysis, to extract the article content and (hopefully) identify the main article image.

In addition to Aylien's article extraction, Blackfacts uses IBM Watson in addition to Aylien for Entity (place/place/organization) analysis, and has designed the AI service sub-system in an open manner such that we can easily add additional AI engines, like Azure Cognitive Services, AWS offerings, etc.

Other than the underlying application framework (.NET) and some freely available application widgets, the external AI systems are the ONLY third-party technologies used in Blackfacts. Everything else is our own intellectual property.

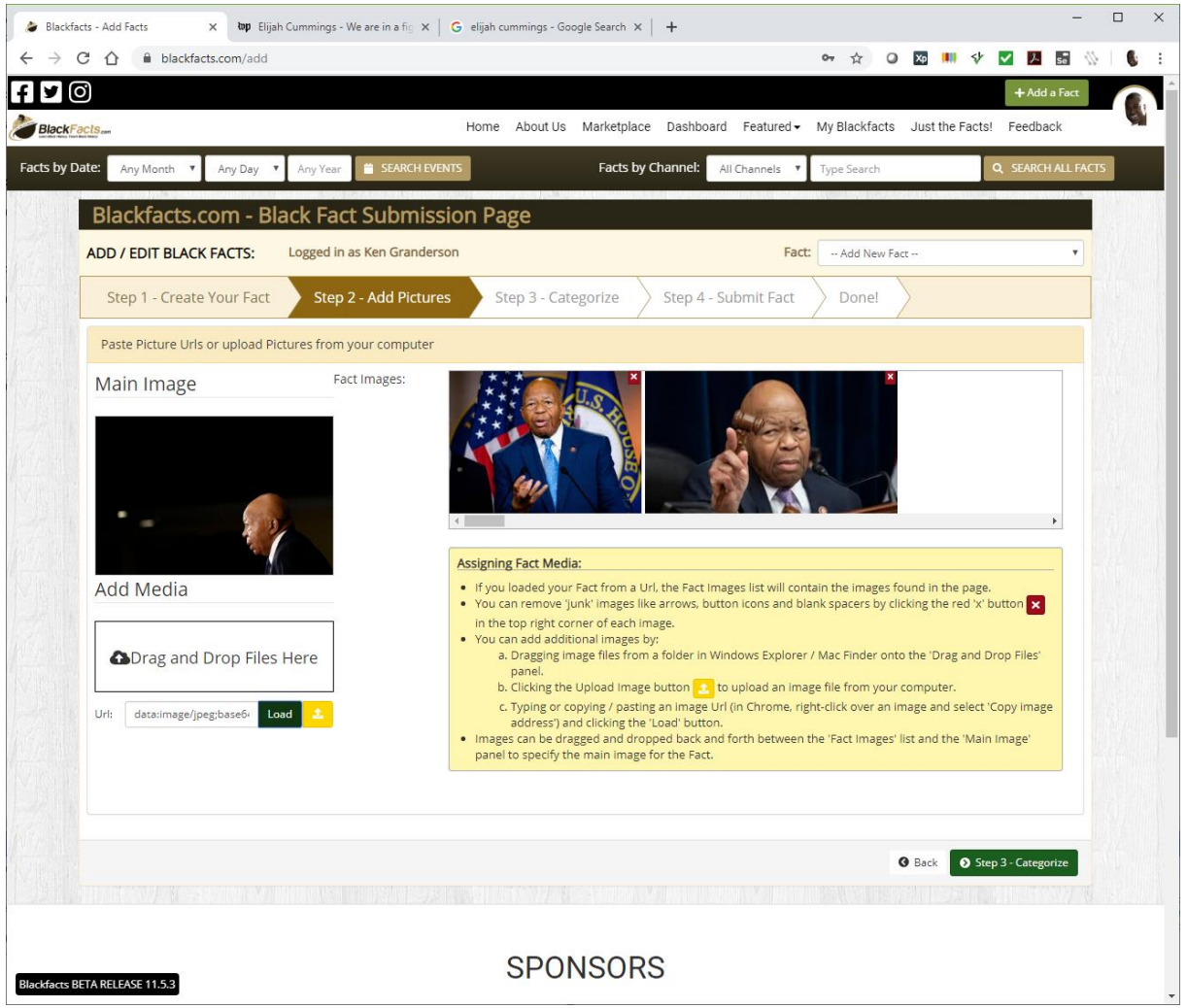
Add A Fact - Media



This is the ‘Add Pictures’ tab, showing the main article image successfully identified by Aylien.

Additional images can be added by copying / pasting their locations for a browser page into the ‘Url’ field, or dragging and dropping them from your computer.

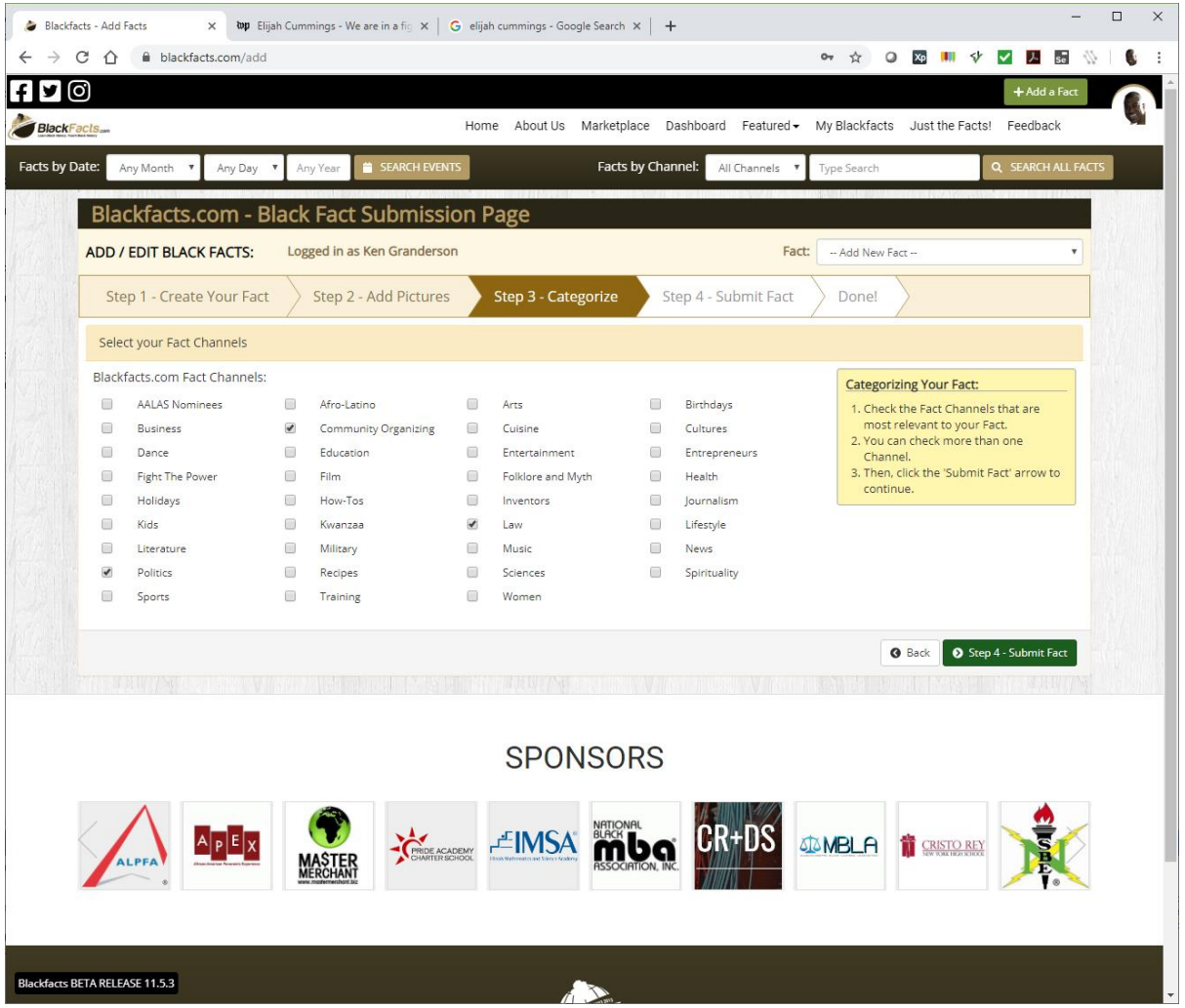
Add A Fact - Media



This is the result of doing a Google Image search for ‘Elijah cummings,’ right-clicking a couple of images and selecting ‘Copy Image Address’ and then pasting them into the ‘Url’ field.

Once in this screen, images can be made the Primary Fact Image (which shows up in the Fact Card view) by dragging it over to the left image box.

Add A Fact - Channels



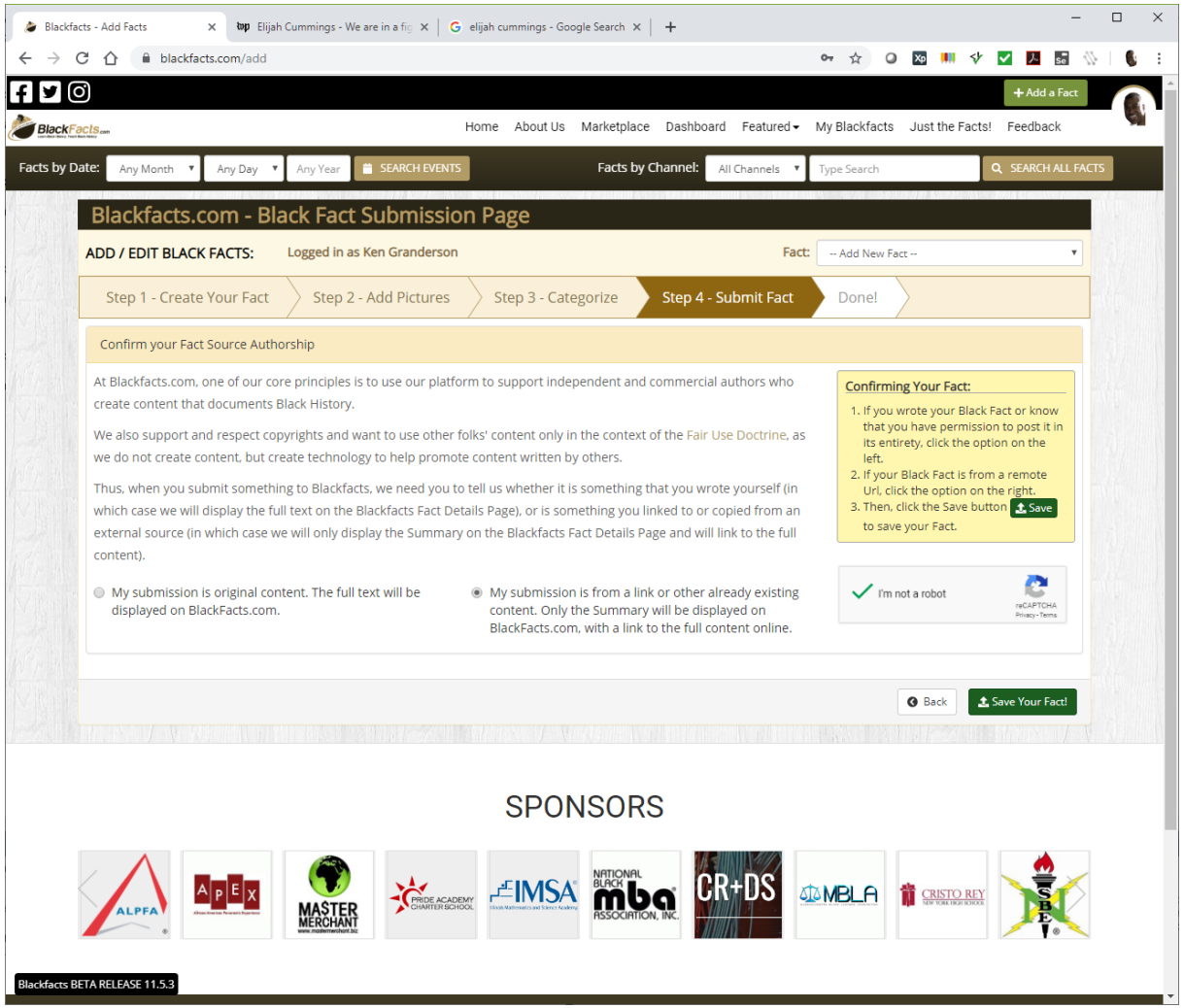
Blackfacts Channels (also shown as Categories, oops,we will update for consistency) are human-organized groupings of Facts based on contextual similarity.

Channels are a primary grouping of Facts for search purposes, used to generate Channel Pages for Facts about Arts, Business, Politics, etc.

Several Channels (i.e. Afro-Latino) will not appear in the main Channels list until they contain enough content to fill up a Channel page. Including them in the Add A Fact page (and adding new Channels based on submissions) enables us to have new Channels reflect user interests.

Channels are distinct from Categories, which are automatically classified by the AI engines, and are over 430 in number.

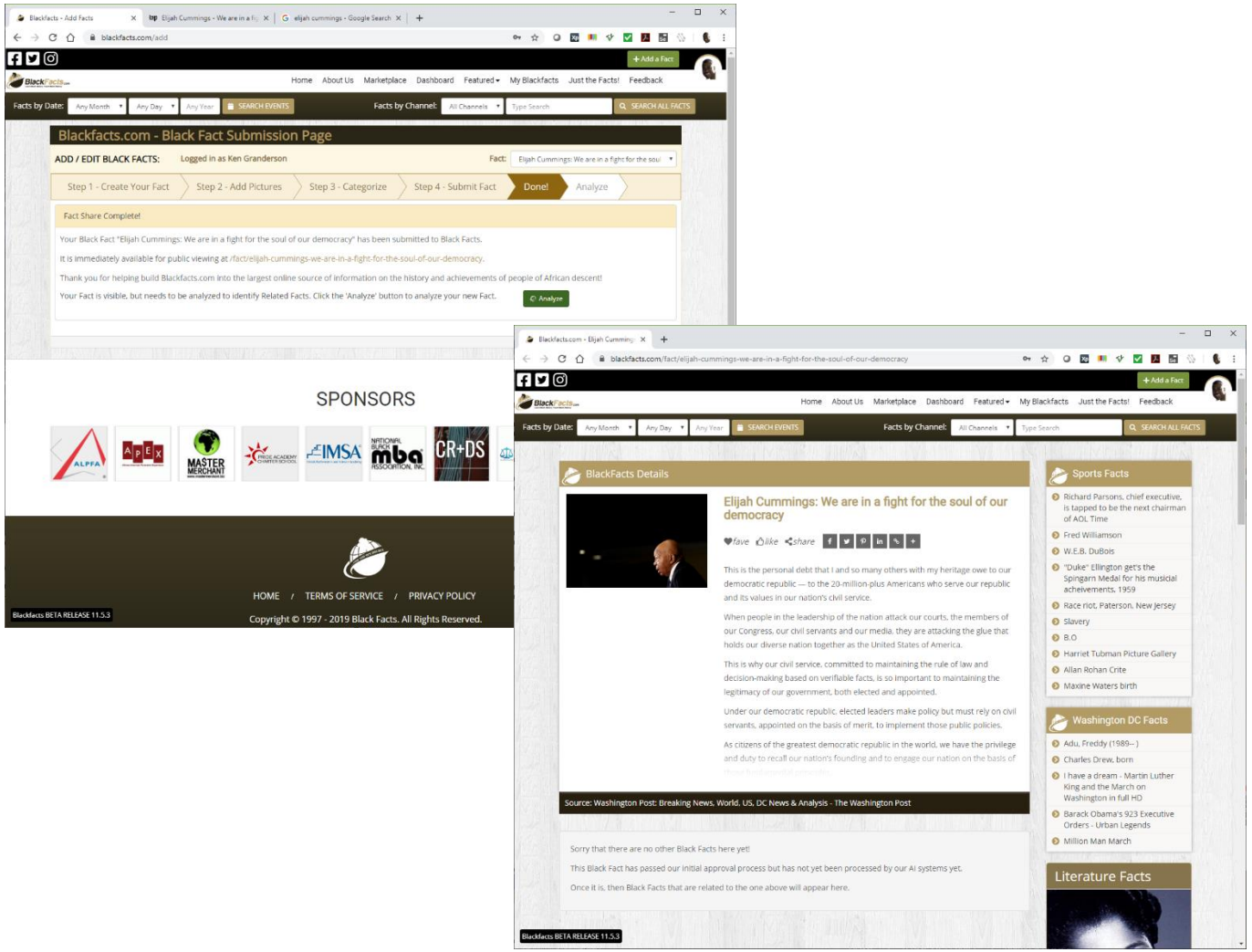
Add A Fact - Ownership



The last step (for non-Admins) of Adding a Fact is indicating whether the submitted Fact is your own content, or shared from another source.

Blackfacts uses this information to control the amount of content displayed directly on Blackfacts before linking to the original source, so that we can stay in compliance with the Fair Use Doctrine and ensure that we are promoting sites that create and publish Black History content rather than replacing them.

Add A Fact – Done!

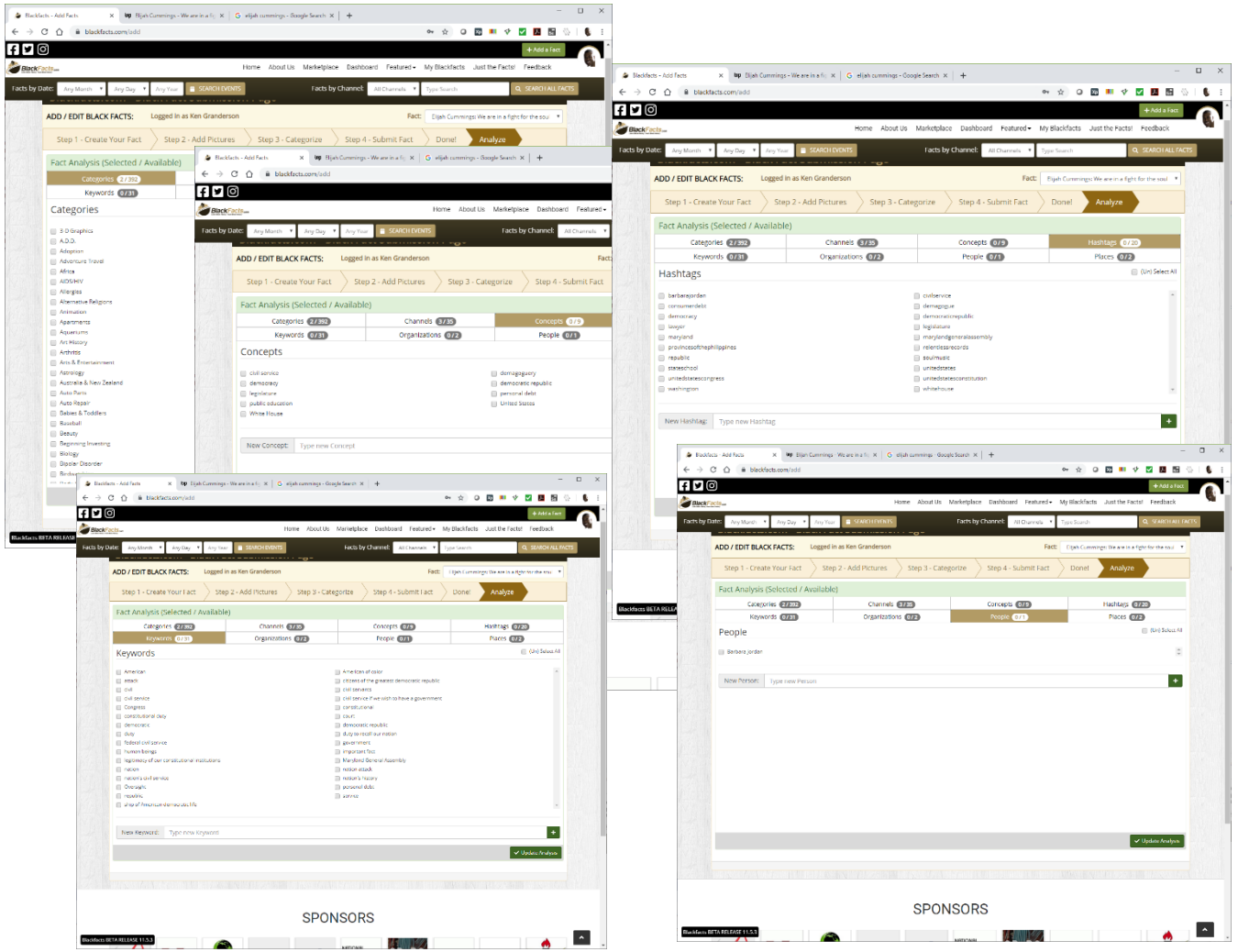


As I am an Admin, my 'Add A Fact' submissions are automatically accepted, and my submission is immediately available on Blackfacts, although as shown under the Fact Details widget, this new Fcat has not yet been linked to any other Facts.

This is because I have not yet submitted the Fact to our Fact Analysis process, because we are currently not using trained AI models and so without human intervention, accepting all analysis results will generate an abundance of contextually irrelevant linkages, as well as the fact that the AI analysis costs money after a certain level of usage.

Back on the 'Add A Fact' page, I will click the 'Analyze' button to submit the new Fact for AI Analysis.

Add A Fact – AI Analysis



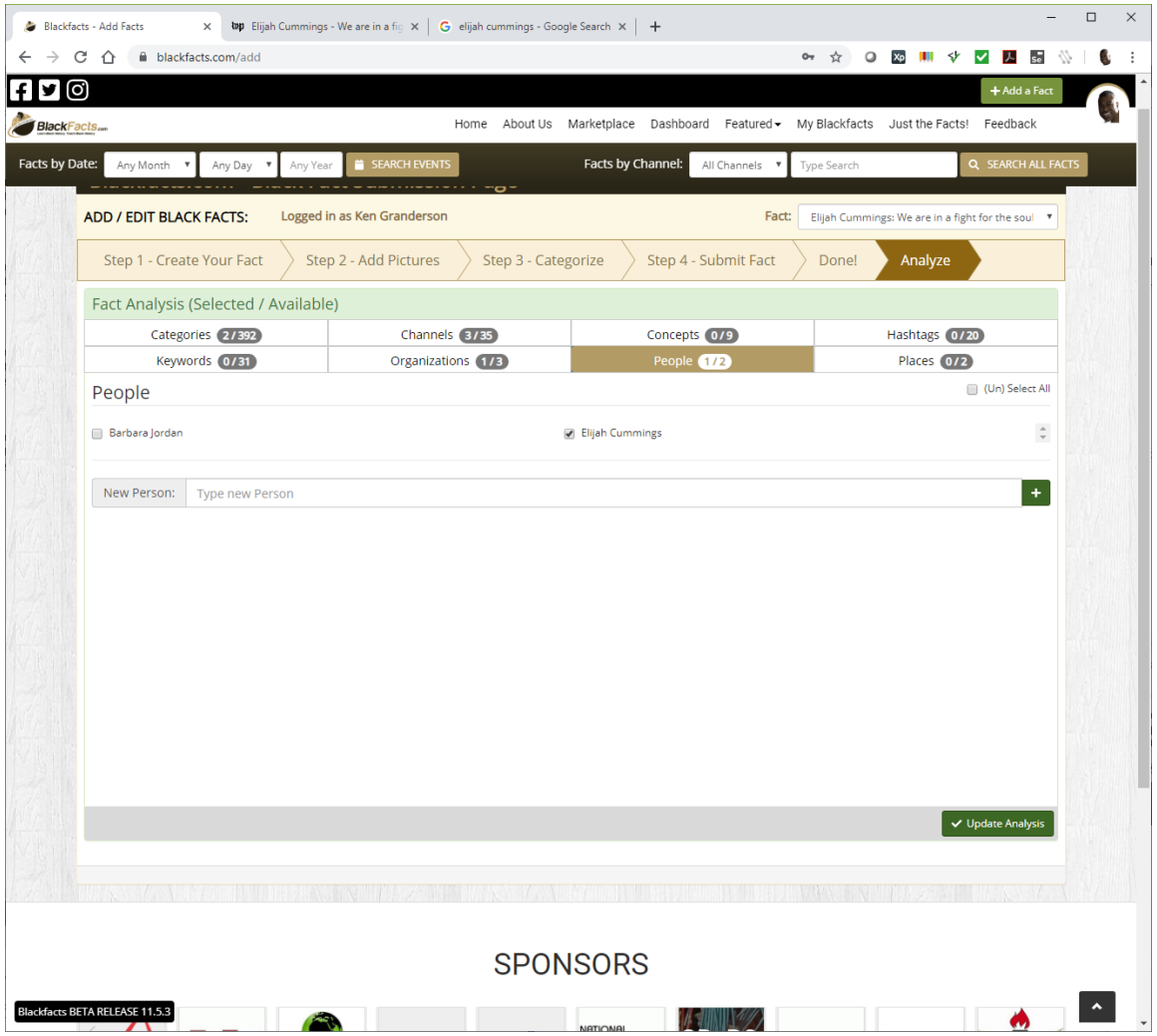
Blackfacts submits the entire Fact content to the 'Natural Language Understanding' services of Aylien and Watson, and returns their identification of the following:

- Categories
- Concepts
- Hashtags
- Keywords
- Organizations
- People
- Places

As shown in the screen captures, the results can often be less than comprehensive or accurate ☹

To be fair, sparse results like this are also often the result of content where people are discussing things that mattered TO the subject, rather than the subject themselves.

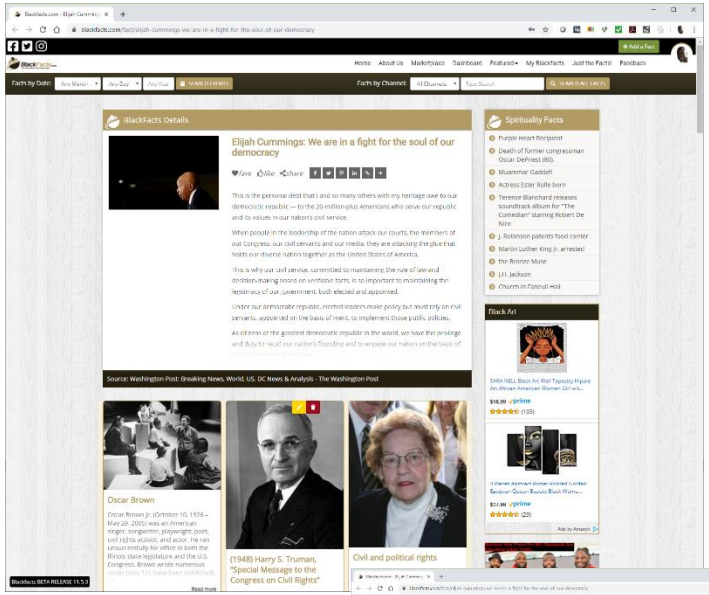
Add A Fact – AI Analysis

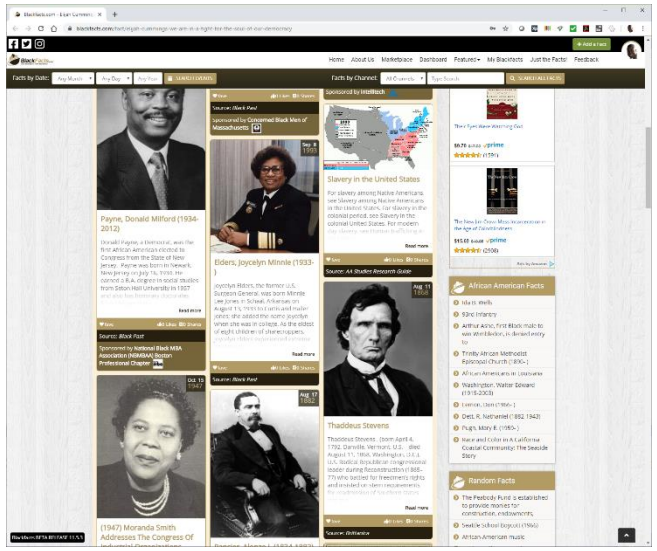


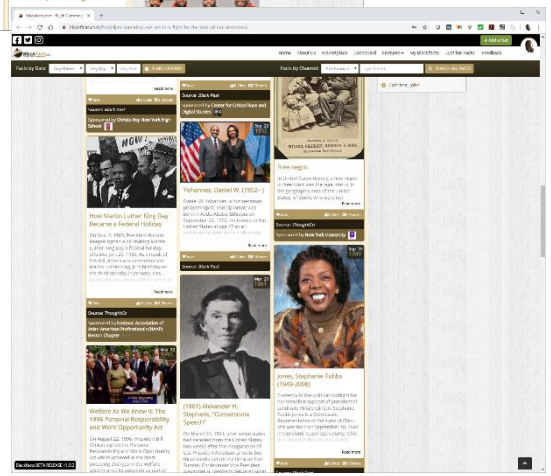
As this is not surprising and actually indicative of the need for Blackfacts, we have built the ability for human operators to link Facts to People / Organizations / etc not recognized by the AI engines.

These manual linkages are stored in the Blackfacts databases, as well as an adjunct database we maintain called Blackfacts.org, for a future project concept of archiving and organizing black-related content on a global level primarily for research, rather than general consumer use.

Add A Fact – Result



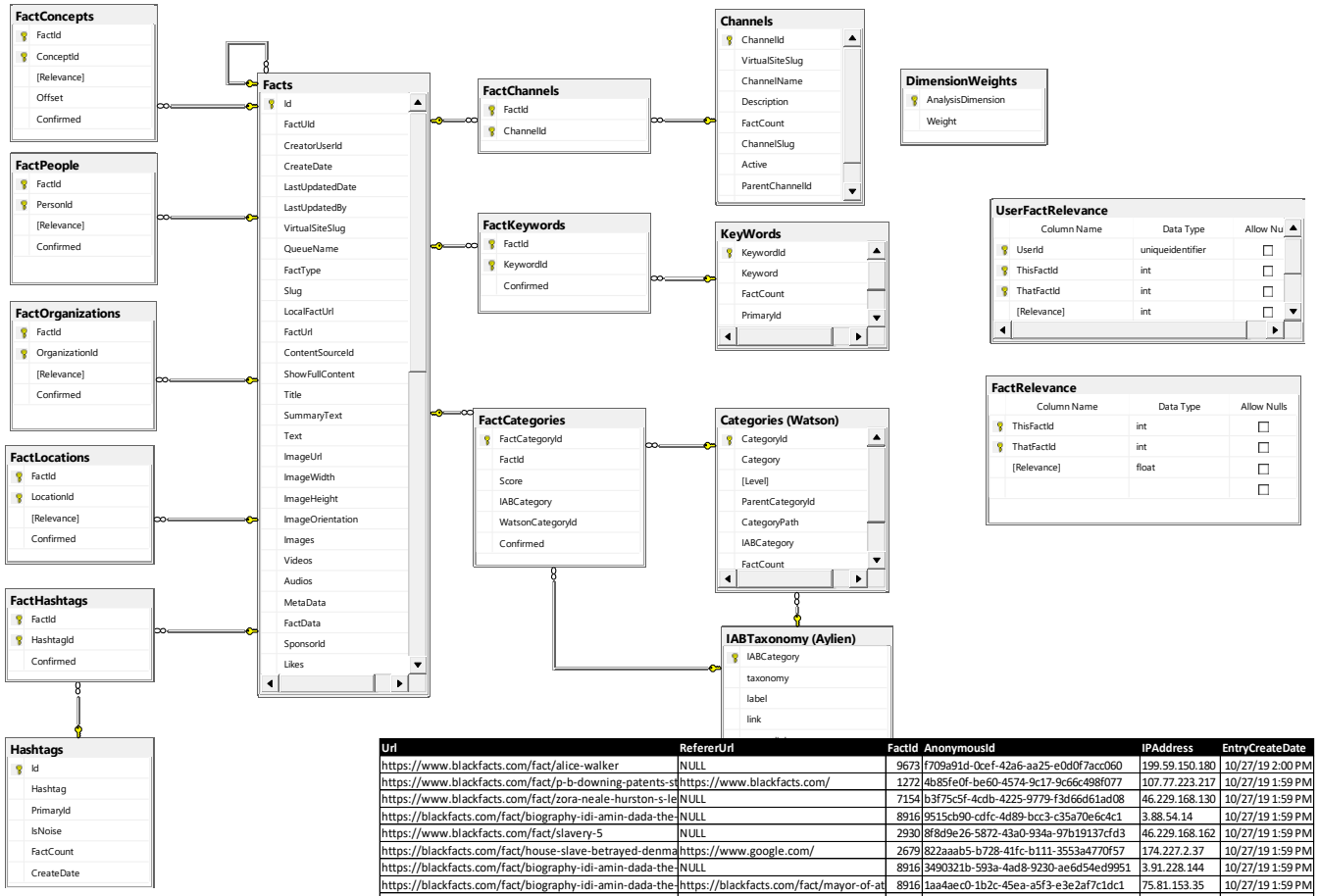




With the AI analysis data processed, reloading the page now shows other Black Facts that are related to the main Fact based on shared the AI analysis entities.

While the Blackfacts tech that reads external content, submits the content to the AI engines and then displays the content based on the analysis is doing its job, the inability of the AI engines ‘out of the box’ to provide richer and more contextually relevant linkages is preventing Blackfacts from delivering higher quality results.

Add A Fact – AI Analysis Challenges and Solutions



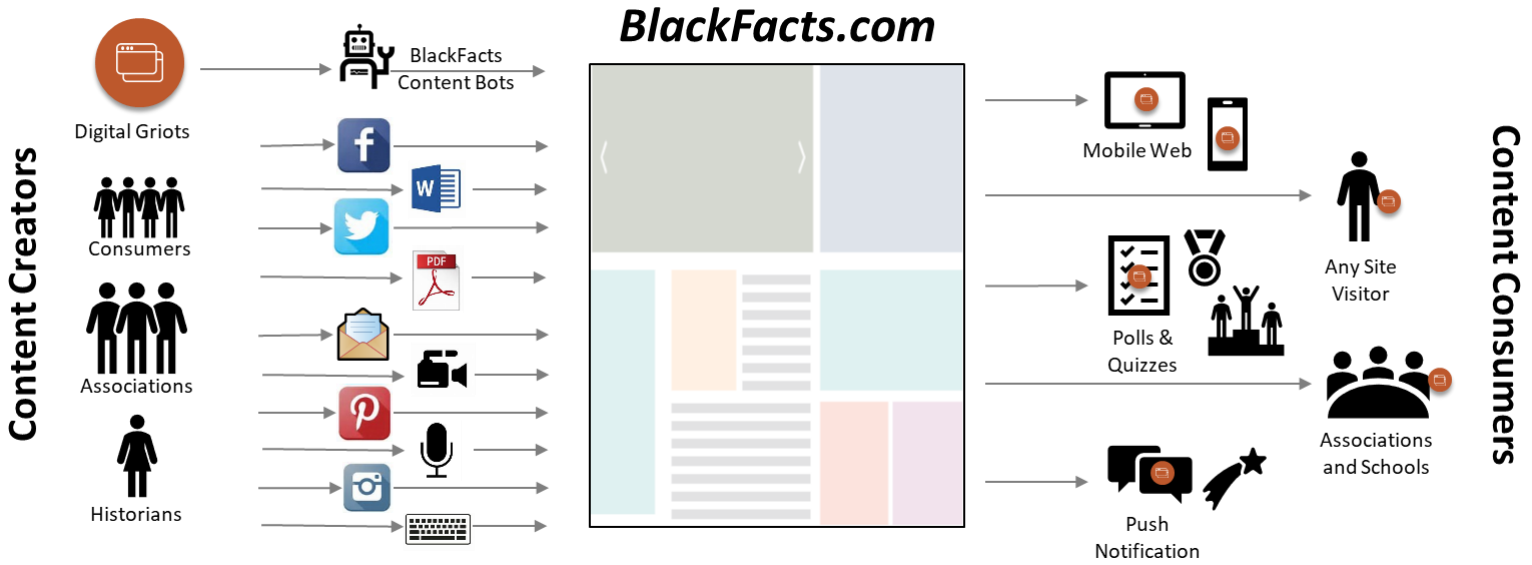
Url	RefererUrl	FactId	AnonymousId	IPAddress	EntryCreateDate
https://www.blackfacts.com/fact/alice-walker	NULL	9673	f709a91d-0cef-42a6-aa25-e0d0f7acc060	199.59.150.180	10/27/19 2:00 PM
https://www.blackfacts.com/fact/p-b-downing-patents-st	https://www.blackfacts.com/	1272	4b85fe0f-be60-4574-9c17-9c66c498f077	107.77.223.217	10/27/19 1:59 PM
https://www.blackfacts.com/fact/zora-neale-hurston-s-le	NULL	7154	b3f75c5f-4cdb-4225-9779-f3d66d61ad08	46.229.168.130	10/27/19 1:59 PM
https://blackfacts.com/fact/biography-idi-amin-dada-the-	NULL	8916	9515cb90-cdfc-4d89-bcc3-c35a70e6c4c1	3.88.54.14	10/27/19 1:59 PM
https://www.blackfacts.com/fact/slavery-5	NULL	2930	8f8d9e26-5872-43a0-934a-97b19137cfd3	46.229.168.162	10/27/19 1:59 PM
https://blackfacts.com/fact/house-slave-betrayed-denma	https://www.google.com/	2679	822aaab5-b728-41fc-b111-3553a4770f57	174.227.2.37	10/27/19 1:59 PM
https://blackfacts.com/fact/biography-idi-amin-dada-the-	NULL	8916	3490321b-593a-4ad8-9230-ae6d54ed9951	3.91.228.144	10/27/19 1:59 PM
https://blackfacts.com/fact/biography-idi-amin-dada-the-	https://blackfacts.com/fact/mayor-of-at	8916	1aa4aec0-1b2c-45ea-a5f3-e3e2af7c1dc1	75.81.153.35	10/27/19 1:59 PM
https://blackfacts.com/fact/mayor-of-atlanta	NULL	3382	890f0511-5600-43ae-b985-2f0e7f57adf9	72.14.199.174	10/27/19 1:59 PM
https://blackfacts.com/fact/mayor-of-atlanta	NULL	3382	b4ee35a0-c505-43a5-bf79-591e9c24c77c	3.82.56.157	10/27/19 1:58 PM

With our robust data models for both Fact analysis relationships and user activity, with better AI engine results, Blackfacts has the ability to generate more and more relevant Fact linkages as the basis for future features like:

- More Facts like this
- Show me more about subjects I like
- Show me more about subjects I don't know about
- Others who found this interesting
- Facts I might be interested in
- etc

We are confident that higher accuracy is achievable by using the learning data model capabilities of any of the AI engines. However, unlike the Natural Language Processing features that are offered at low volume for free, custom learning models have costs that will only be realistic to incur after Blackfacts has either achieved profitability through service offerings, or has secured significant external financing.

Blackfacts – Our Future is AI



Blackfacts ability to become 'The Black Wikipedia' and capture and preserve our stories, told by us, for all perpetuity, rests on three basic ideas:

1. Capture the Content – No matter where it is and what form it is in, get a textual representation of the information

2. Classify and Link the Content – Find common people, events, ideas, et cetera across separate content items, and create contextually appropriate linkages between them

3. Distribute the Content to People Wherever They Are – Make Blackfacts content available to the world whether they are mobile or desktop users, in school, on the train, at the gas station, in Dunkin Donuts, on their company intranet, looking at their cable TV Guide, wherever digital or printed content is found.

The Blackfacts Tech Team has the technical ability to achieve items #1 and #3 with our proprietary tech, third party tools, and #3 will require building relationships with external entities interested in our content, which is not expected to be a problem once we start marketing Blackfacts aggressively.

However, #2 requires significant investments of money and (initially) labor to arrive at the point where the AI systems will be able to operate with minimal human involvement and then become as scalable as other Blackfacts tech that has been developed without incurring significant labor costs.

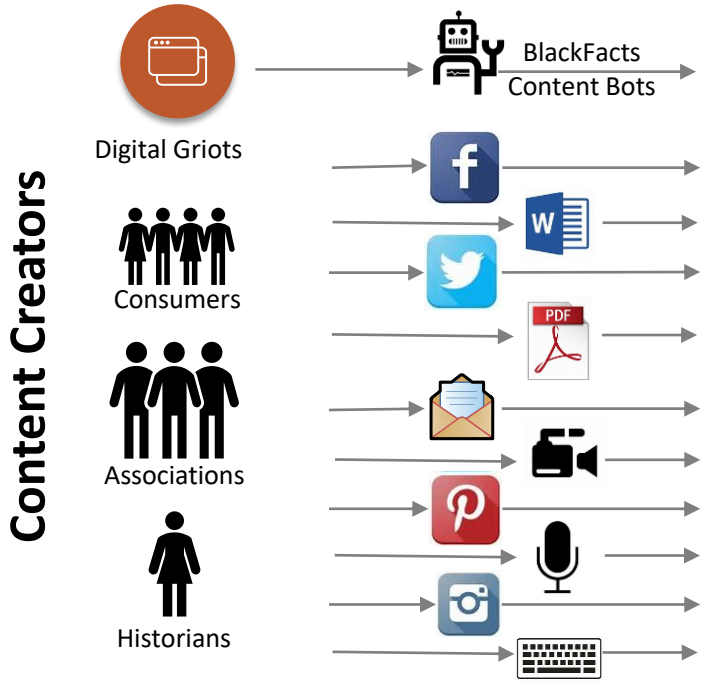
Thus, we are looking to partner with academic or research institutions engaged in work that could benefit from our capabilities, who have the ability to write and win grants for research or product development in this space.

Following Slides

This concludes the Fact AI description.

The balance of the slides in this presentation are part of the Blackfacts Pitch Deck, included to answer some likely questions that may arise by viewers of this presentation, as well as to provide contact information if viewers of this presentation are interested in contacting us.

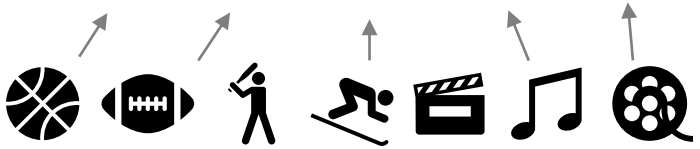
BlackFacts.com Core Business Model



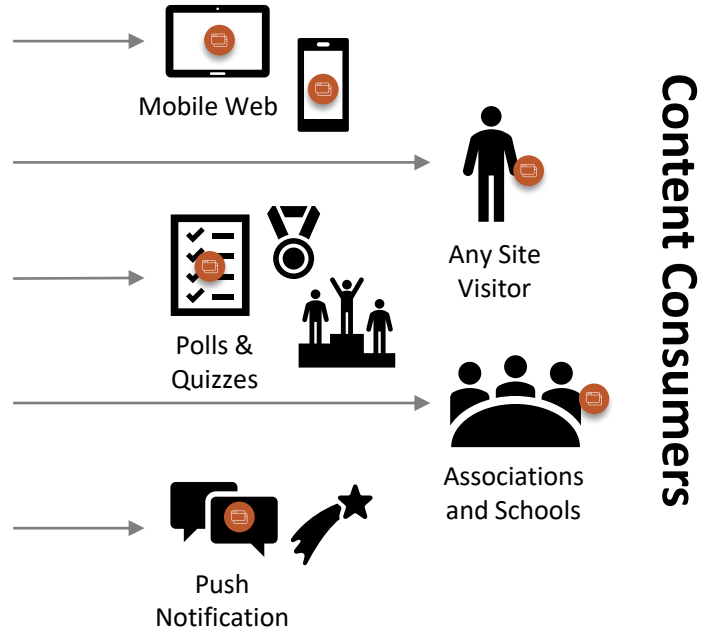
BlackFacts.com

Revenue Streams

1. Premium Membership
2. Premium Virtual Sites
3. Fact Widgets
4. School/Diversity Sites
5. BlackFacts Legacy Sites
6. Corporate Sponsorship
7. Banner/Email/Social Advertising
8. Marketplace Affiliate Sales



Sponsors / Advertisers / Vendors



Content is submitted by BlackFacts Users, Griots and our proprietary web crawlers (news & relevant content), from online pages, social media sharing, uploaded documents and media.

While access is free to all, Premium Memberships, the Wakanda Marketplace, Corporate/School Sponsorships and Advertising generate BlackFacts' Revenue

Consumers get BlackFacts content on any platform by visiting the website or receiving push notifications via Email/Text/Social Media.

BlackFacts content is syndicated via BlackFacts Widgets hosted on affiliate sites and entire custom BlackFacts-driven partner sites.

BlackFacts.com Management Team

- **Ken Granderson** - Founder / Chief Technology Officer
  MIT alumnus and Tech Visionary, Creating Ethnic Technology since 1995, Creator of BlackFacts.com, Roxbury.com, Official website of the Government of St. Lucia

- **Dale Dowdie** - Chief Executive Officer
  Enterprise-Level Technical Consultant / Entrepreneur
  Building Online Business Applications and facilitating Tech Transformation, Data Centers Buildouts and DR/BCP Strategies since the 1980s for Clients including, Harvard University, NASA, Multi-national Banks, Liberty Mutual, Staples, TJX, EDS, IBM, McCormick, MassHousing and the City of New York

Other Resources in Part-Time, Paid and Unpaid Consultant Roles:
Rick Van Rice (Business Development), James Mwihia (QA and Tech Support), Michelle Tutunjian (Operations Manager), Sandra Bone (Social Media), Beatriz Callejas (Social Media), Melanie Semedo (Social Media) and Offshore Development Resources in India (Pilots and Product Support)

Blackfacts.com: 3 Year Plan*

In order to meet our goals, we recognize the needs to make several improvements to our current site, particularly for Administration and Support of features for Members, Partners and Sponsors. We must also expand our reach by looking to new sources of content and implementing our strategic marketing plan. These features are being built/tested now for rollout in 2020.

2020: New Features

- ❑ Black News Syndicate
- ❑ Business & HBCU Directory
- ❑ Widgets 2.0 (Custom Layouts)
- ❑ Educational Showcase Sites
- ❑ Diversity Showcase Sites
- ❑ Enhanced Content Relevance

2021: Revenue Builders

- ❖ Marketplace Vendor Catalog
- ❖ Marketplace Self-Service Signup
- ❖ Widgets 3.0 (Ads)
- ❖ Affiliate Self Service Signup
- ❖ Wakanda Initiative Launch
- ❖ Build Strategic Partnerships

2022: Growth and Profitability

- ➢ Full Wakanda Business feature set
- ➢ Full Wakanda Organization feature set
- ➢ Full Marketplace vendor tool set
- ➢ Full Premium Membership feature set
- ➢ Launch Strategic Partnerships

Future: Black Wikipedia

BlackFacts.com – What's Next?

What are the key tasks to get BlackFacts.com ready for the Feb 2020 kickoff

AREAS OF FOCUS	DESCRIPTION	STATUS	ACTION
	Increased Membership Functionality	In Process	With our new membership model now available we must fine-tune and improve on the underlying functionality needed to support those members
	Update Administrative Tools	In Process	New Website Design, Branding and Technology will be a BIG part of our rollout and preparation for 2020
	Kick-off Marketing Campaign	In Process	Our Marketing campaign is a series of Email Campaigns using our email lists and social media outreach
	Begin Programs that drive revenue (ads, products, etc.)	Not Started	We have already had requests for Advertisement and Products Sales/Affiliate programs. We need to Pilot these offerings to enable them on the site
	Kick Off – Feb 2020 Event	No Started	Black History Month 2020 is the Event that signals the start of the next evolution for BlackFacts.com

Questions?

- **Ken Granderson** - Founder / Chief Technology Officer
  ken@blackfacts.com
  857-222-2318

- **Dale Dowdie** - Chief Executive Officer
  ddowdie@blackfacts.com
  781-858-6852

.com BlackFacts
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