

# Direct to Consumer Genetic Testing (DTC Genomics)

- Allows users to provide genetic material for genetic testing at home without clinical oversight
- Sector includes: Carrier testing, Ancestry, Predictive testing and Nutrigenomics
- Industry is set to hit 2 Billion USD by 2020; 3.8 Billion by 2027, of which the US accounts for 25%<sup>1</sup>

#### **Competitors:**

- •23andMe, Inc.
- Ancestry.com, LLC
- Any Lab Test Now
- •Color Genomics, Inc.
- Counsyl, Inc.
- •Direct Laboratory Services, LLC
- •Gene by Gene, Ltd.
- Laboratory Corporation of America
- •Mapmygenome India Limited
- •Positive Bioscience, Inc.
- Quest Diagnostics, Inc.
- •Request A Test, Ltd.
- Sonora Quest Laboratories LLC
- •Xcode Life Sciences

<sup>&</sup>lt;sup>1</sup> https://www.globenewswire.com/news-release/2020/07/11/2060919/0/en/Global-Direct-to-Consumer-DTC-Genetic-Testing-Industry.html

### My Heritage: Product description and product segments



A leading global discovery platform for exploring family history and gaining valuable health insights.



Sophisticated matching technologies, billions of international historical records, and at-home DNA tests help people explore their heritage and understand their past so that they can improve their future.



The world's only integrated service that combines family history and DNA testing for genealogy and health

<u>J Med Internet Res</u>. 2020 Jan; 22(1): e14890. Published online 2020 Jan 21. doi: 10.2196/14890 PMCID: PMC7001042 PMID: <u>31961329</u>

Valuable Genomes: Taxonomy and Archetypes of Business Models in

Direct-to-Consumer Genetic Testing

Monitoring Editor: Gunther Eysenbach

DTC genetic testing can be regarded as a class of business models that can serve to make genetic testing more affordable and accessible.

In light of the glaring contradiction between the ongoing proliferation of DTC genetic testing services, on the one hand, and the spreading skepticism toward their business practices on the other hand.

There still seems to be little consensus among providers of such services, policy makers, professionals, and the general public on what actually constitutes suitable business models for DTC genetic testing

Our results paint a much more heterogeneous landscape of the DTC genetic testing market than most of the extant literature in this area has conceived.

#### Table 2

Taxonomy of direct-to-consumer genetic testing services' business models.

Dimension	Characteristics			
Strategic choices				
Business purpose	For profit; nonprofit			
Region of operation	Local; worldwide			
Consumer target group	Enthusiasts; specific information seekers; enthusiasts and specific information seekers; chronic health issue and risk group			
Consumer research consent	Mandatory; optional; data not used			
Value network				
Distribution channel	Internet only; health care professionals only; multicontact service			
Sampling site	Home collection; lab collection; home and lab collection			
Sampling kit provider	Service provider; third party; service provider and third party			
Sample storage	Never; mandatory; consumer decision			
Create value				
Genome test type	Genotyping; sequencing; genotyping and sequencing			
Data storage	No storage; isolated storage; database for service provider			
Data ownership	Consumer; service provider			
Data processing	No interpretation; basic interpretation; value-added interpretation			
Capture value				
Fee type	Pay-per-use; pay-per-use and subscription; no fee			
Fee payer	Consumer only; consumer and health insurance			
Reselling of genome data	Yes; no			

### (12) United States Patent Sacks

US 8,224,862 B2 (10) **Patent No.:** Jul. 17, 2012 (45) **Date of Patent:** 

(54)	SYSTEM AND METHOD FOR PROVIDING A
	NETWORKED VIRAL FAMILY TREE

- Inventor: **David Sacks**, Beverly Hills, CA (US) (75)
- (73)Assignee: Geni, Inc., West Hollywood, CA (US)
- Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 366 days.

- (21)Appl. No.: 12/014,059
- Filed: Jan. 14, 2008 (22)

#### (65)**Prior Publication Data**

US 2008/0172407 A1 Jul. 17, 2008

#### Related U.S. Application Data

Provisional application No. 60/884,807, filed on Jan. 12, 2007.

(51) <b>Int. Cl</b>	

$\mathbf{A}1$	1/2003	Notargiacomo et al.
A1*	6/2005	Ripps et al 345/440
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#### **ABSTRACT** (57)

A system and method for a networked viral family tree are disclosed. According to one embodiment, a computer-implemented method, comprises receiving a first profile from a first client. The first profile includes a first e-mail address. A

## MyHeritage, Assignee for 1 patent:

A system and method for a networked viral family tree are disclosed. According to one embodiment, a computer-implemented method, comprises receiving a first profile from a first client. The first profile includes a first e-mail address. A second e-mail address is received from the first client. The second e-mail address is associated with a second profile. The second profile is created dynamically when the client provides the second e-mail address. An invitation is sent to the second e-mail address to provide additional profile information associated with the second profile. One or more relationships are associated to the first profile and the second profile to generate a family tree. One or more user interfaces is provided through which the first client provides a plurality of e-mail addresses corresponding to members of the family tree and are associated with of a plurality of profiles.

## MyHeritage; Assignee on 1 Trademark







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IC 010. US 026 039 044. G & S: Diagnostic test kits for scientific use comprised of devices for collecting DNA samples in the nature of DNA collecting swabs, vials, sealable bags, collection envelopes and boxes and instruction manuals for using diagnostic test kits, all used for the purpose of researching genealogical and family history. FIRST USE: 20161121. FIRST USE IN COMMERCE: 20161121

IC 042. US 100 101. G & S: Application service provider services featuring software for use in data management, data storage, data analysis, report generation, user identification, and membership identification, and in creating, displaying, sharing and storing multimedia presentations that include photographs and sound, all in the field of genealogy and family history; providing temporary use of nondownloadable computer software for use in creating, displaying, sharing and storing multimedia presentations that include photographs and sound, and that enables family groups to create and maintain personalized websites for the purpose of sharing information regarding family members, all in the field of genealogy and family history; computer services for others, namely, hosting and maintaining an online website; providing scientific analysis in the field of genetic and family history and genealogy; reporting services based upon the results of laboratory testing in the field of genetic and family history and genealogy; providing online computer databases featuring information based on the results of genetic testing for research purposes; scientific research in the field of genetic and family history and genealogy; DNA testing services for non-medical use, namely, DNA testing for investigating and learning about genealogical and family history; hosting of digital content on the Internet, namely, hosting historical data and information and on-line journals and blogs in the field of historical data and information, genealogy and family history; computer services, namely, hosting and maintaining an online website for others to access and share information and data in the fields of historical data and information, genealogy and family history. FIRST USE: 20170519. FIRST USE IN COMMERCE: 20170519

IC 045. US 100 101. G & S: Provision of genealogical information, namely, provision of educational, research and historical genealogical information; providing genealogical information, namely, family history information services, namely, retrieving, recording and reviewing ancestral data via the global computer network; consultancy, information and advisory services relating to the aforesaid; and providing an online computer database in the field of genealogy information and family history information; providing an online resource center featuring information in the field of genealogy information and family history and genealogy. FIRST USE: 20160519. FIRST USE IN COMMERCE: 20160519

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### Patent Issues

☐ Patentability of Diagnostics☐ Patentability of Algorithms☐ Patentability of DNA☐



**Business & Policy** 

Technology

Research

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Disease Areas

Home » Business, Policy & Funding » Business News » Appeals Court Upholds Unpatentability of 2:

## Appeals Court Upholds Unpatentability of 23andMe IP

Oct 07, 2019 | staff reporter

NEW YORK — An appeals court on Friday upheld an earlier ruling that found a method for identifying relatives developed by 23andMe is not patentable, marking the latest development in the company's legal battle with rival genetic ancestry testing firm Ancestry.com.

In 2018, 23andMe sued Lehi, Utah-based Ancestry.com in a federal district court for, among other things, infringement of one of its patents — No. 8,463,554 — that describes a method of analyzing "identical by descent" regions of the genome and determining the degree to which two people in a database are related.

In August of that year, the court found that the claims in the '554 patent are patentineligible because they do not relate to any "inventive, unconventional technique" related to their discovery or application.

While Mountain View, California-based 23andMe appealed the decision, the US Court of Appeals for the Federal Circuit last week affirmed the lower court ruling.