

faceless®

Actionable epidemiological intelligence



“A worldwide early warning system is needed to detect quickly the eruption of new diseases or the unusual spread of old diseases. Without such a system, operating at a truly global level, we are essentially defenseless, relying on good luck to protect us.”

*J.M. Mann, Preface
The Coming Plague
Laurie Garrett (1994)*

The United Nations has long called for and never achieved:

“An integrated global alert and response system for epidemics and other public health emergencies based on strong national public health systems and capacity and an effective international system for coordinated response.”

In view of the on-going experience of COVID-19, the world does not need further evidence of the threats to public health. Nonetheless, the world remains unprepared. Public health outbreaks, epidemics, and pandemics are likely to become increasingly complex. Continued failure to develop resilient health infrastructure and public health systems in much of the world has created vulnerability to future outbreaks—while an increasingly globalized world makes rapid transmission a growing threat. Widespread vulnerability will remain a fact of life until every country is able to develop comprehensive primary care services, garner an adequate number of healthcare workers and available medicines, and foster robust health information systems, infrastructure, and public financing.

Anonymous Data Collection and Privacy

Daedalus is absolutely committed to collecting, processing, and disseminating only anonymous data from end-users. Member-participants in *faceless*—and its affiliated activities—are assured that absolutely no personally-identifying information is ever collected that could be used or compromised. Daedalus' policy statements on this and related subjects that are available on the company's web application and websites. Daedalus considers this rigid policy of anonymity and information privacy to be critically important—particularly in view of compromises revealed by social media and the resultant lack of trust developed in their user communities.



Data Analytics

In addition to actionable epidemiological intelligence, the anonymous health data collected by *faceless* will also permit the production of tailored global health information of enormous potential value, including predictive and normative analytics. GeoHealth's AI-aided data analysis group will produce a series of standard academic and commercial series to meet known requirements for personal and public health information within specific industries. Additionally, the group will respond to requests for special surveys utilizing the broad categories into which the individual or aggregated data can be classified and analyzed.

Data Products

- Individual Health Profiles
- Aggregated Health Profiles
- Tailored Research
- Medical Indices from the Global Health Profiles—Medicium

faceless[®] is a free application available at www.myfaceless.com that serves as the collection vehicle of **anonymous** individual health information for GeoHealth[®]. The *faceless* and GeoHealth system is a development from Daedalus Health Information Systems Incorporated, a thought leader in global public health informatics. Daedalus' purpose is to save lives, reduce suffering, and to make a positive impact upon individual, community, and global public health.

Supporting the *faceless* web-app is the website www.myfaceless.info, where all information regarding the *faceless* web-app is located separately from the web-based application to ensure anonymity and privacy.

faceless' objective is to become the most innovative, global-scale information source dedicated to gathering and sharing anonymous health information.

faceless collects anonymous individual information regarding demographics, social history, physical and mental health history, family health histories, current episodic health information, and other special surveys that are physician-led and science-based. That data will form the basis of *personal health profiles*, which will be aggregated to create local, regional, and national health profiles and, eventually, the global health profile—to provide statistically and clinically meaningful data for every level of public health analysis.

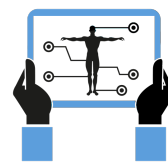
That information will also form the basis for providing *timely and accurate situational awareness—actionable epidemiological intelligence*—regarding the health and welfare of individuals, communities, nations, and the global community. That information will permit health practitioners, first responders, public health officials, and decision makers at all levels of government to achieve early detection, isolation, control, treatment, and eventual eradication of communicable diseases.

faceless data analytics will integrate information from clinical databases and other sources, including live feeds—using artificial intelligence—to provide convergent validity to many of the results that the *faceless* and GeoHealth system produces. Those analytics will also be directed toward developing a greater appreciation for the social, economic, environmental, geographic, genomic, and other determinants of health—both individual and community.

faceless initial market development strategy concentrates upon a globally-based, *Direct Interest Group*, which is comprised of students, faculty, and staff of schools of medicine, epidemiology, public health and other medical and health science-related disciplines. The Direct Interest Group will appreciate the inherent value of the information that will be produced by *faceless* and will benefit from that information in their medical and health-related professional endeavors. Upon successful enrollment of the Direct Interest Group, Daedalus will turn to acquisition of members through traditional marketing methods and social media. Complementing those efforts will be acquisition of users from various *Direct Incentive Groups* that will involve users from around the world that would not, otherwise, be able to participate without incentives.



Family Physical
Health History



Current
Symptoms



Physical
Health History

Geographic Information System

A geographic information system, or GIS, is an information technology system that allows for the storage, manipulation, analysis, and display of information that has a geographic component, also called geospatial data.

GIS allows for the visualization of multiple layers of geographic data to provide an easy means to present and interpret it. Complex spatial analysis and queries can also be performed within and among data in a GIS to locate new trends and expose relationships.

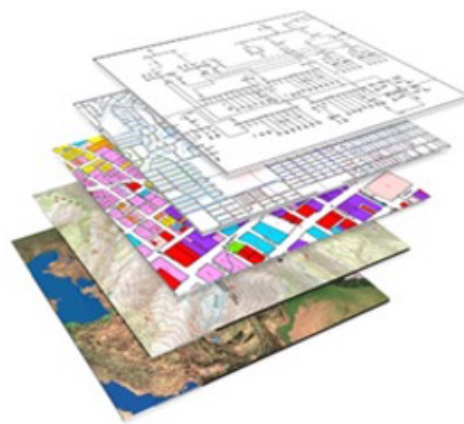


GIS Problem Solving

Results of a study published in 1996 in the American Journal of Public Health entitled: Cancer Risk and Residential Proximity to Cranberry Cultivation in Massachusetts (Aschengrau et al) demonstrated—through GIS presentation and analysis—a confoundingly high incidence of cancer in Cape Cod that led to the identification and documentation of unrecognized contaminants in the aquifer. Those results—and the critical importance of GIS in problem identification—formed the impetus behind creation of *faceless* and GeoHealth and the use of geospatial technologies to address public health issues.

Interactive GIS and Data Base

Daedalus intends for the users of *faceless* to be able to access the interactive GIS site and the *faceless*/GeoHealth interactive database via the www.myfaceless.info site—where they will be able to view absolute and comparative data from other users. User GIS data will reflect geoproximity and not geolocation to ensure privacy and anonymity.



Daedalus' vision for the *faceless* and GeoHealth system includes becoming the most comprehensive and authoritative source of information regarding individual, community, national, and global health. That vision includes the system possessing enormous power for data analysis, geospatial interpretation, and large-scale processing of epidemiological data and complex events to produce insight into complicated medical situations—beyond those currently achievable through conventional research and data analysis techniques. The results will make a significant contribution to medical science. Employment of DNA sequencing technology will provide further convergent validity to the understanding of public health.

faceless will utilize geospatial technology from ESRI, the global market leader in geographic information system (GIS) software, location intelligence, and mapping. ESRI's geographic approach to problem-solving is brought to life by modern, enterprise-grade GIS technology. *faceless* GIS maps and database will be interactive for its users.



GIS is a framework for gathering, managing, and analyzing data. Rooted in the science of geography, GIS integrates many types of data. It analyzes spatial location and organizes layers of information into visualizations using maps and 3D scenes. With this unique capability, GIS reveals deeper insights into data, such as patterns, relationships, and situations helping users make smarter decisions. GIS data visualization display and decision are important aspects of all data produced by the *faceless* and GeoHealth system.

Daedalus Health Interest Areas

- Health Informatics
- Critical Information Dissemination and Notification Systems
- Monitored Care Programs
- Preventive Health Programs
- Global Public Health—GeoHealth



Public health outbreaks and epidemics are likely to become increasingly complex. A continued failure to develop resilient health infrastructure and public health systems in much of the world has created vulnerability to future outbreaks - while an increasingly globalized world makes rapid transmission a growing threat. Widespread vulnerability will remain a fact of life until every country is able to develop comprehensive primary care services, garner an adequate number of healthcare workers and available medicines, and foster robust health information systems, infrastructure, and public financing.



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Company Background—Daedalus Health

Daedalus Health Information Systems Incorporated was formed under the laws of the Commonwealth of Virginia in 2003. Daedalus' activities are divided into five principal areas: health informatics; information dissemination and notification programs; monitored care programs; preventive health programs; and, global public health.

Daedalus' current focus is upon its GeoHealth health informatics project, which consists of three principal enabling technological components: Electronic Triage®—the workflow engine at the heart of GeoHealth; the *faceless* anonymous individual health information collection mechanism that will also serve as a social networking platform; and, eventually, the live-streaming GeoHealthNews.

Recently, Daedalus' efforts in GeoHealth were positively impacted by the paradigmatic, technological, and cultural shift brought about by the ubiquitous availability of affordable, quality artificial intelligence. AI will allow Daedalus to accomplish public and individual health objectives far greater than previously envisioned. Through AI, integration of multiple data sources will augment detection of disease processes or *prodromes* that declare themselves in advance of the normal clinical and laboratory data. Thus, *Prodromic Surveillance* will lead to more rapid response to an early population-based awareness of the onset and spread of illness.

faceless, and GeoHealth, represent an innovative, non-disruptive development that will provide a body of information and knowledge that never existed and is not replacing another method—consistent with dispelling the myth that innovation must be disruptive. GeoHealth fulfills formal and informal requirements, will create economic opportunity, and make meaningful contributions to medical science and global public health.

Daedalus' current objective is to develop GeoHealth into the premier, global health information gathering, processing, and dissemination system capable of providing *timely and accurate situational awareness—actionable epidemiological intelligence*—regarding public health. That epidemiological intelligence will contribute to a healthier global society and toward reduction of the cost of public health. Daedalus will, eventually, expand its mission to provide information on individual health and chronic diseases.



Actionable epidemiological intelligence