



hGraph: An Open System for Visualizing Personal Health Metrics

History, Key Facts & Recognition

Key Facts

A HEALTH OVERVIEW IN ONE PICTURE

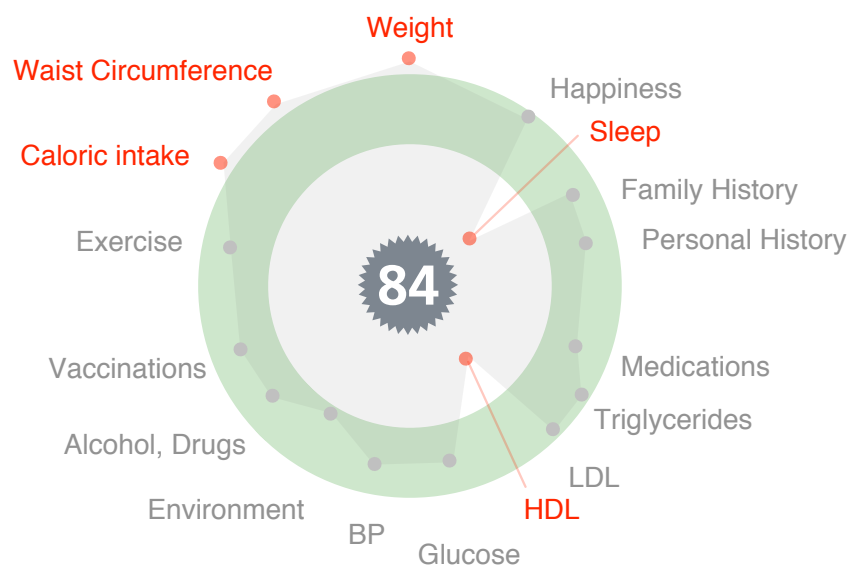
hGraph is an information visualization particularly well-suited for viewing complex data, which provides a complete overview of an individual's health. The hGraph single picture method can have a profound effect on a person's understanding of their total well-being, because it compiles multiple metrics into a unified graph that can be viewed at a glance.

A SINGLE HEALTH SCORE

The hGraph health score, at the center of the visualization, is based on a formula that weighs metrics differently based on their contribution to overall health. It provides an easily understood numerical confirmation of the total data picture presented in the graph.

OPTIMIZED FOR CLINICIANS AND PATIENTS ALIKE

The hGraph visual representation is engaging, optimized for use by both the health care provider and the patient, and supports high-level pattern recognition and analysis as well as the ability to see deeper details.



OPEN SOURCE

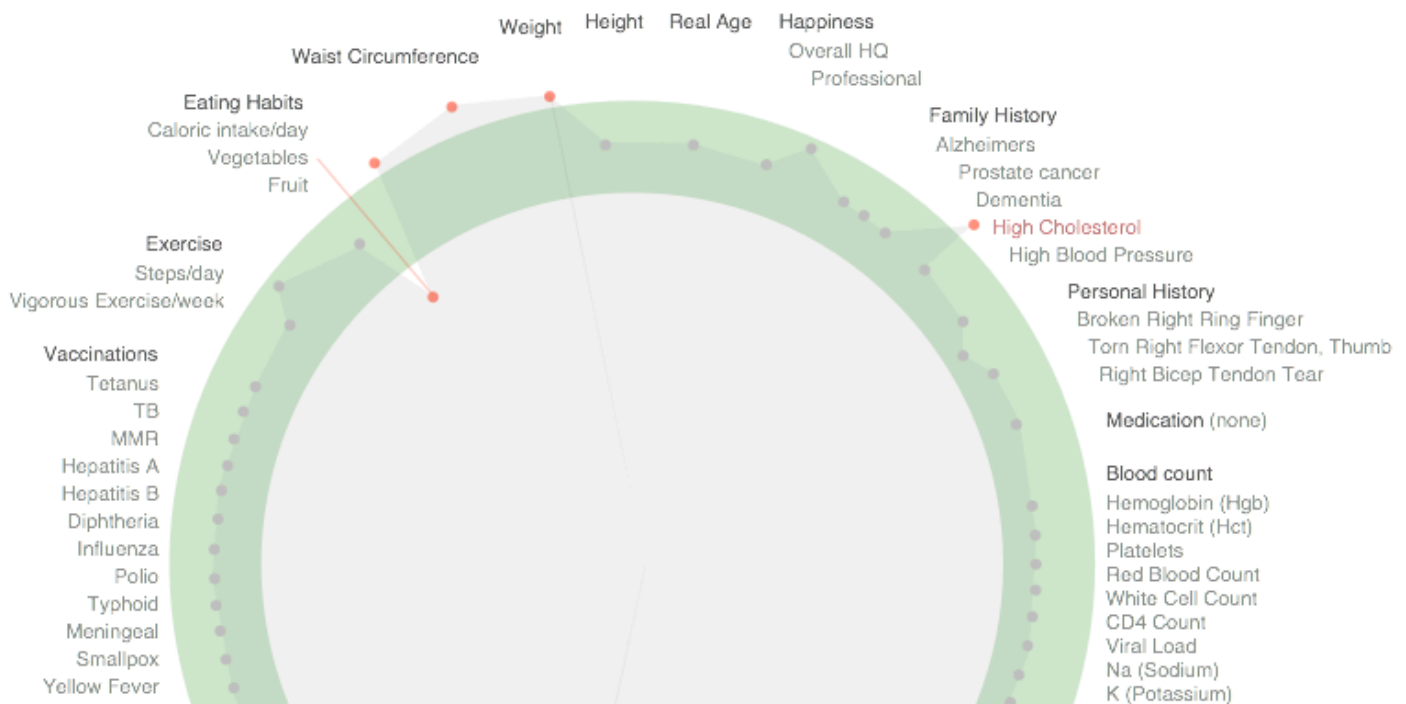
The open source nature of the hGraph visualization specification — which is distributed under the Apache license — means that it can be modified, improved, and incorporated into software systems, such as electronic health records, with minimal overhead.

A VISUALIZATION SYSTEM FOR MANY SCENARIOS

hGraph can be used in a variety of scenarios, wherever a quick visualization would be valuable, because it effectively conveys important data at sizes both large and small. The visualization scales easily as more metrics are added.

HIGHLIGHTING OF ABNORMAL METRICS

It's easy for the hGraph user to identify metrics that exist in a normal range, versus those that may be too high or low. The normal range for a particular metric is shown the green zone on the chart, while metrics outside normal range are highlighted only if they are currently problematic. With hGraph, healthcare providers and patients can learn to recognize representative visualizations for common disease states.



History

PUBLIC RELEASE

2010

In August, 2010, the MITRE Corporation publicly released a paper on the open source hGraph project, entitled “hGraph: Your Health in One Picture”, which described the use of a single information visualization to depict a person’s health. The authors of this paper were Sam Birch, Snyukta Inamdar, Harry Sleeper, and Juhan Sonin.

ONGOING DEVELOPMENT

2010 - 2012

Since 2010, the hGraph concept has been further developed by private companies including Involution Studios in Arlington, Massachusetts, iMedia Solutions in Dartmouth, Massachusetts, and CrossOver Health, in Aliso Viejo, California, in line with its original purpose — to provide a single source representation of a person’s overall health state — given the great need for standardization of health information visualizations.

Recognition

- ✦ MITX Interactive Awards, 2012 - Finalist
- ✦ New England Health Datapalooza, 2012 - Second Place
- ✦ Stanford MedicineX Conference, 2012 - Selected Paper / Poster
- ✦ O’Reilly Strata Conference on Big Data, 2012 - Featured Presentation

Core Contributors

Involution Studios

Involution designs and builds exceptional software for innovative and visionary companies. We deploy small and experienced teams to create applications that are highly usable and appropriately beautiful. Over the last eight years we have worked with over 150 different companies providing application design for web, desktop, and a variety of mobile and alternate platforms. The biggest and best technology companies in the world trust us as their software design partner, along with notable non-technology companies. Our client list includes Apple, AstraZeneca, 3M, McAfee, Microsoft, Oracle, PayPal, Shutterfly, and Yahoo.

iMedia Solutions

iMedia is a software and Web technologies engineering company in business for over a decade. iMedia delivers full life-cycle solutions in Web, desktop, mobile, embedded systems, and big data software, using primarily Disciplined Agile Delivery (DAD). The iMedia engineering team leverages modern technologies, driving down costs and increasing productivity with enterprise-class custom software solutions.

MITRE

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Contact

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