Featured Startups Fighting COVID-19: Part I

Innovation in the Time of a Global Pandemic

Speed is critical. As coronavirus (COVID-19) quickly spreads across the globe, officials face the daunting task of tracing case contacts and containing the pathogen. With quarantines increasing throughout the world, healthcare providers and governments must utilize solutions beyond their walls to monitor the coronavirus more than ever. Luckily, startups and researchers around the globe are already pivoting their technologies to help fight the spread of this deadly virus.

Using Technology to Fight COVID-19

At Plug and Play Munich, we have been monitoring the European startup ecosystem and have pulled together some interesting startups from our current and previous batches that have developed a COVID-19 solution.

In this feature, we highlight some stellar solutions in diagnostics and monitoring that are being used as incredible tools to help fight the spread of the virus. These startups have either been part of the Plug and Play Munich Insurtech accelerator program cohorts in the past or are within our existing batch program.

If you are interested to get connected with any of the startups mentioned, please reach out to Jessica at **j.cheng@pnptc.com**.

Startups

Clearbox AI enables trustworthy, robust, and human-centered AI deployment at scale in enterprises.

Curiosity unlocks the knowledge in unstructured documents.

DynaRisk conducts cyber security scoring for individuals and SMEs.

Etsimo connects patients, providers and payers around data-driven healthcare with AI-driven digital health assistants

IDEE ensures people's digital interactions are trustworthy and private.

Clearbox AI

CLEAR BOX

clearbox.ai

Enabling trustworthy, robust and human centered AI deployment at scale in enterprises.

Clearbox.ai's MLOps solution helps data scientists/AI model owners to continuously monitor their models, perform uncertainty quantification, robustness testing, and gain model insights in real time.

The COVID-19 emergency prompted Clearbox.ai to leverage their technology to deploy an AI enabled **Decision Support System (DSS)** that can be used for COVID-19 diagnosis using chest X-ray images.

There is a lot of excitement about using Deep Learning based technologies to diagnose COVID-19 using X-Ray images. However there is a lack of **transparency and interpretability**. Clinicians and doctors don't trust in the model outcomes and the benefits of AI remain untapped.

For each X-ray image, Clearbox.ai's system will output a diagnostic score and highlights portions of the image used to make that prediction. Together with the prediction, the tool will provide test accuracy scores for each diagnosis, possible anomalies in the output, and a robustness analysis that shows how the prediction changes when the input image is changed with controlled perturbations. In addition, users will be able to input other data describing the patient conditions, that combined with the X-ray image will give a more robust prediction.

TOGETHER AGAINST COVID-19

About Clearbox AI

Headquarters: Turin, Italy
Founded: 2019
Employees: 6
Fundraising: Pre-Seed

ClearBox is an AI company building trustworthy and human-centric AI solutions that can be used even by non-data scientists. The platform can retrofit to existing AI models and can provide human interpretable explanations to the decisions made by complex Machine Learning models without reducing their performance.
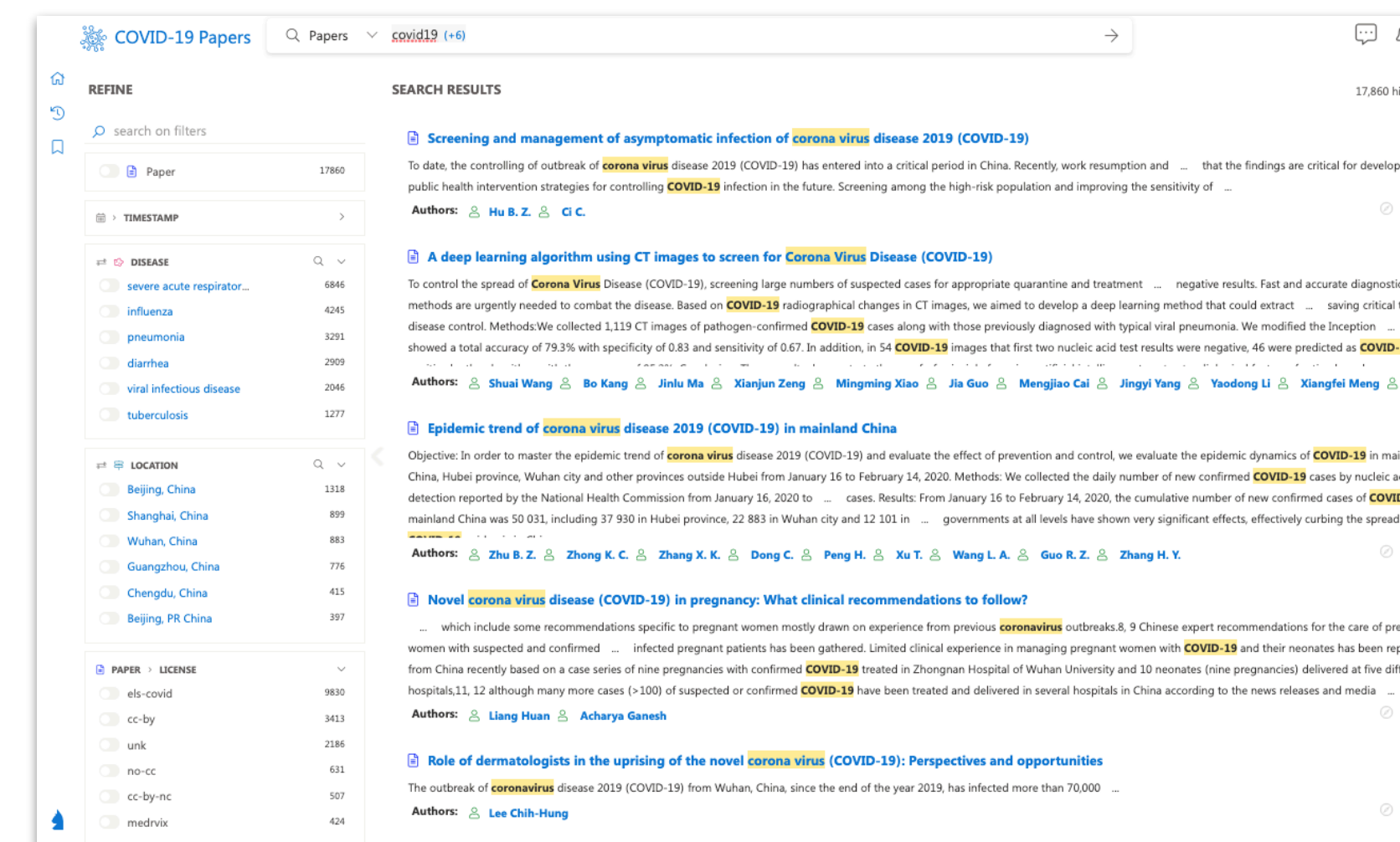
Curiosity

curiosity.ai

Unlocking the knowledge in unstructured documents.

Curiosity's software helps companies access and use their unstructured knowledge, which is especially important as more people work remotely.
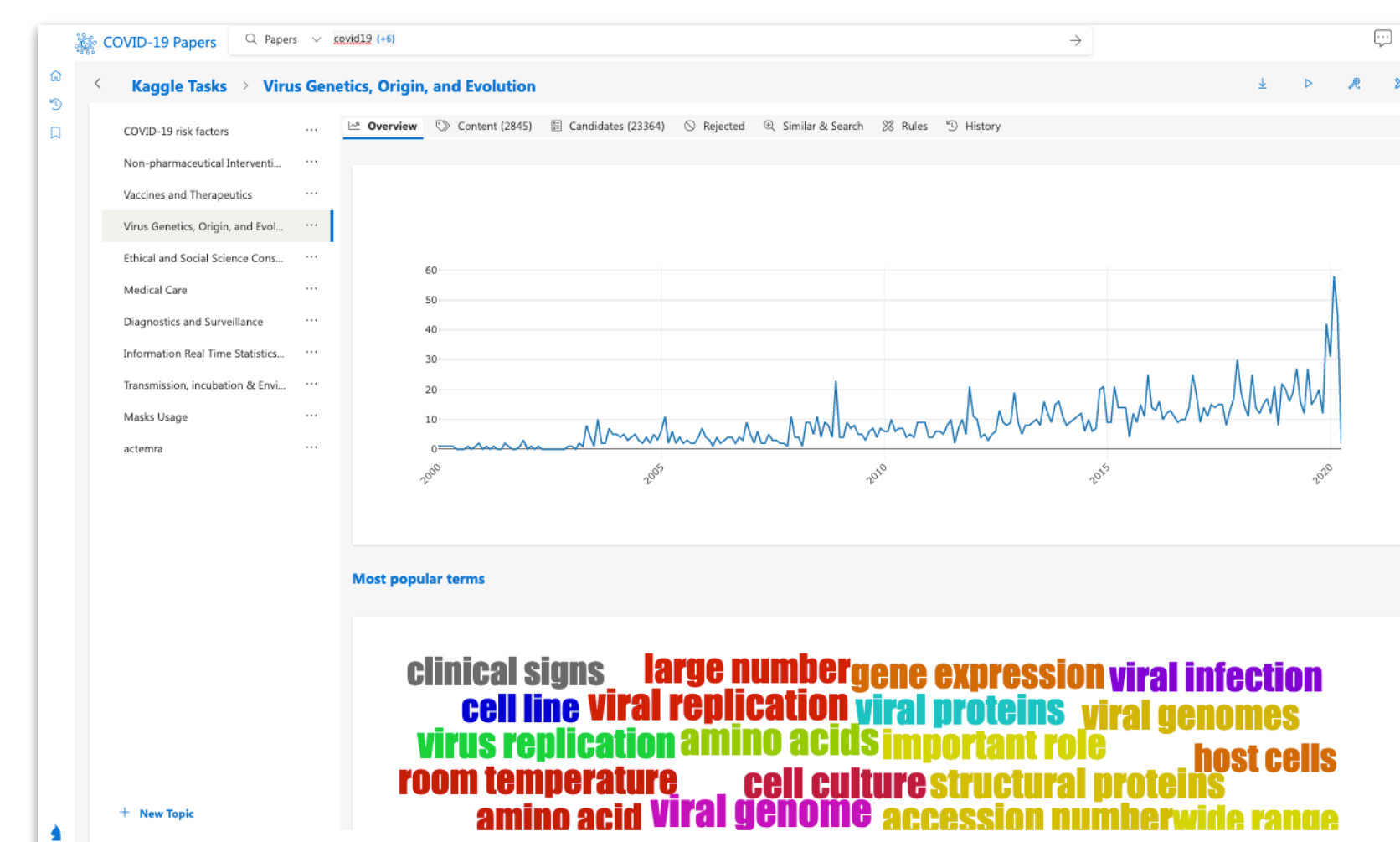
Curiosity enables companies to do that with their AI-powered tools. **Search** makes it easy to find documents and experts by linking them to a searchable knowledge graph. **Topic mining** helps to find, analyse and monitor clusters of documents. e.g. in customer feedback or quality reports. Finally, the **AI framework** makes it easy to build custom knowledge applications for special cases. All of the tools offer no-code AI with unmatched performance, easy setup, and enterprise-grade scale and security.

The tools are based on Curiosity's custom AI software that integrates proprietary NLP and graph database capabilities with UIs and active machine learning. Each system is self-contained and can be hosted securely within customer environments.
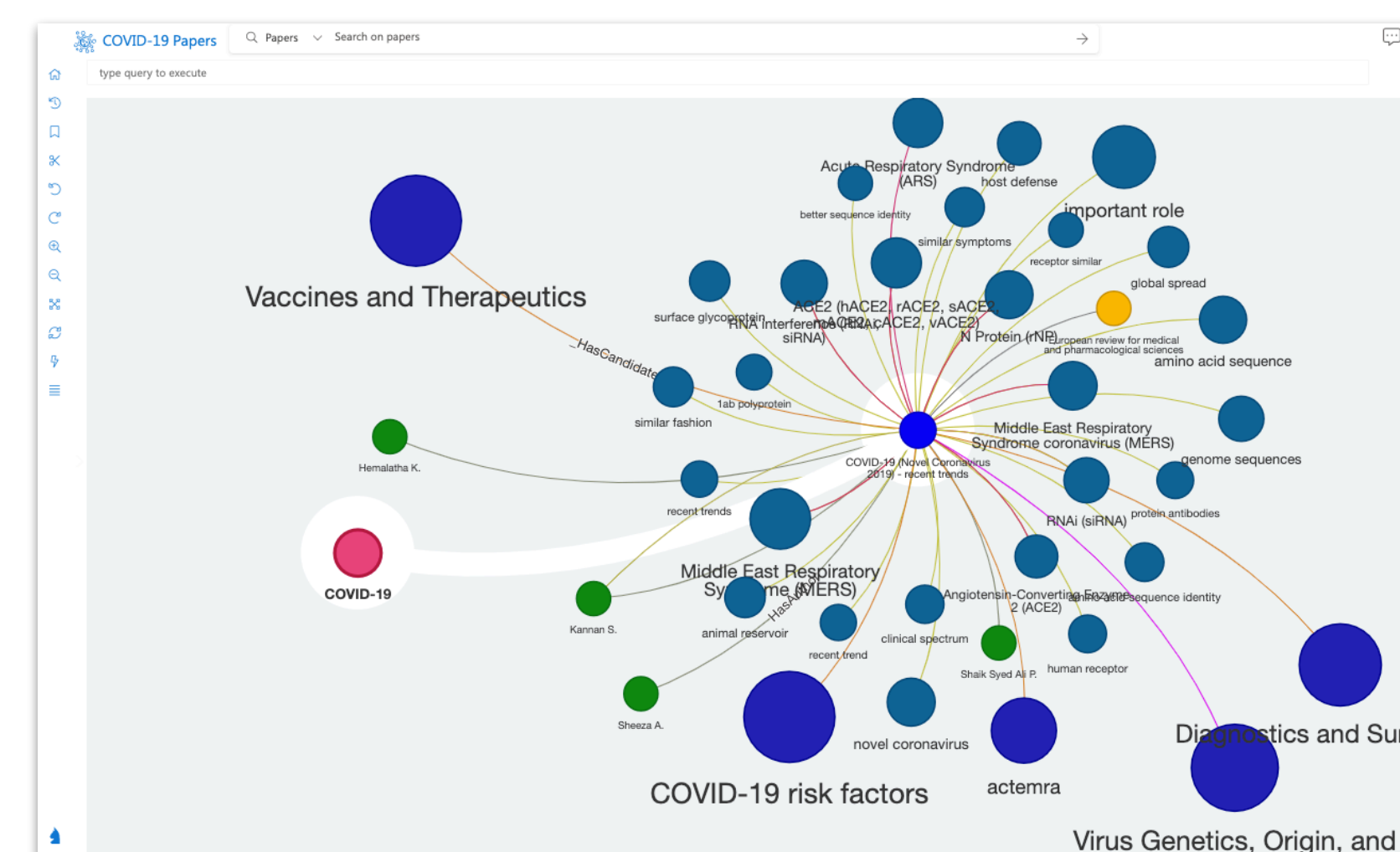
To help medical researchers with COVID-19, Curiosity built a tool that links 45.000 papers into a searchable knowledge graph. This free to use platform utilizes Curiosity's AI-enabled graph and search technology to enable users to easily explore the many articles, research papers and datasets.

AI-powered search

Topic mining

Knowledge graph

About Curiosity

Headquarters: Munich
Founded: 2018
Employees: 6
Fundraising: Bootstrapped

Curiosity's AI-powered software Mosaik helps companies build custom solutions for their unstructured data. Mosaik combines everything companies need to extract the information from their documents (NLP suite, knowledge graph, UI toolkits, etc.).
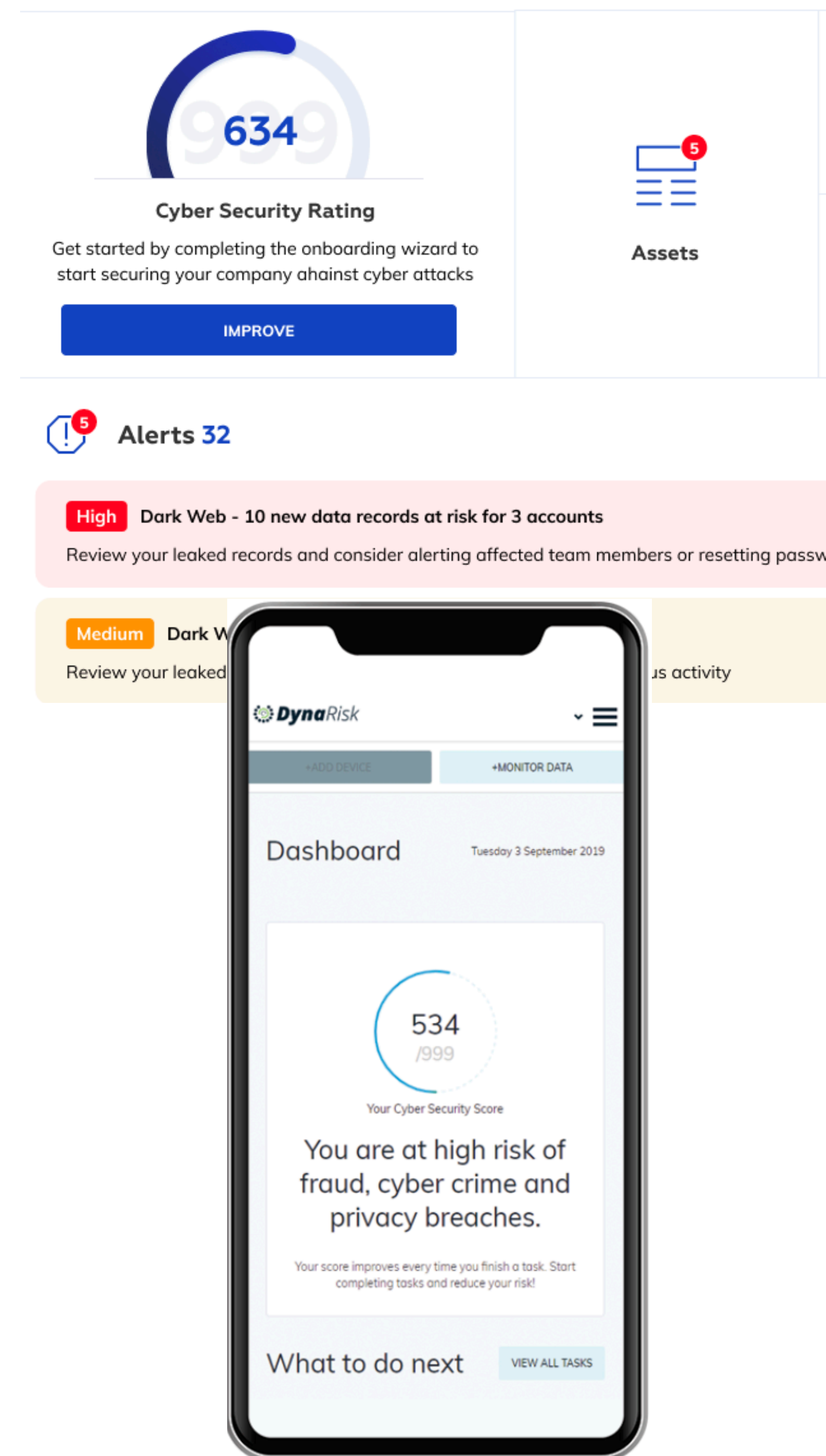
DynaRisk

dynarisk.com

Cyber security scoring for individuals and SMEs.

DynaRisk is a cyber security company focused on protecting both consumers and SMEs from a growing number of digital threats. DynaRisk's platforms are designed to take the guesswork out of cyber security by actively helping users and businesses to minimise their cyber attack surface. They work with banks, insurers and other large organisations to provide their risk management solutions to end clients. DynaRisk helps its partners to reduce fraud losses, improve loss ratios, differentiate from competitors and improve customer retention.

During the COVID-19 pandemic, DynaRisk has seen a surge in cyber crime as more businesses have moved to remote working. With more employees working from home, corporate cyber defences are weaker. Cyber criminals have actively taken advantage of the pandemic, targeting small businesses in a number of sectors.

DynaRisk has launched a brand-new platform for SMEs – DynaRisk Breach Defence – and is offering free beta access to new and existing clients. DynaRisk Breach Defence is an all-in-one cyber risk management platform that helps SMEs to reduce their attack surface by training staff, monitoring the dark web for data breaches and alerting administrators when data records or assets are leaked online.

Dynarisk for SMEs: https://bit.ly/3eL62z8
Dynarisk for Individuals: https://bit.ly/3eL62z8

About DynaRisk

Headquarters: London
Founded: 2016
Employees: 18
Fundraising: Seed

DynaRisk has created the world's first personal Cyber Security Score to keep the average person safe from cyber crime. After getting their score and completing actions tailored to reduce their personal risks, the average user improves their score by 55% within the first 100 days, reducing their exposure to a number of online threats. Bundled with insurance policies or bank accounts, DynaRisk helps partners to increase sales, provide more value, reduce claims and drive marketing.

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Etsimo

Etsimo

Connecting patients, providers and payers around data-driven healthcare with AI-driven digital health assistants.

Etsimo's CE-marked medical device is an AI driven solution based on demographic information, symptoms and risk factors and it helps guiding patients to the right care at the right time with the right information.
Etsimo's COVID-19 version is being built on the same technology and will be able to give probabilities on COVID-19 and other respiratory infections. This means that it is able to grade suspicions of the virus and also estimate other possible reasons, i.e. diseases for the symptoms. This provides peace of mind to the consumer while giving the opportunity to
triage them to non-COVID-19 care and thus offloading coronavirus related services.

Etsimo's triaging is personalized – consumers' care need is evaluated and triaged based on (a) the current severity of their symptoms (urgency) in combination with (b) their personal risk factors. As a result, consumers can be segmented into different risk groups and given different care paths even if the symptoms and subsequent prediction probability for COVID-19 between two patients is the same. It can also be used to rank patients (eligibility) for molecular testing. Etsimo's aim is to be the next best thing after a molecular test.

About Etsimo

Headquarters: Finland
Founded: 2016
Employees: 25
Fundraising: Series A

Etsimo offers a healthcare platform that leverages AI and machine learning on top of health data, making it possible for healthcare providers and insurance companies to instantly offer their customers an engaging experience and predictive and preventive healthcare through existing and future digital channels.

IDEE

IDEE

getidee.de

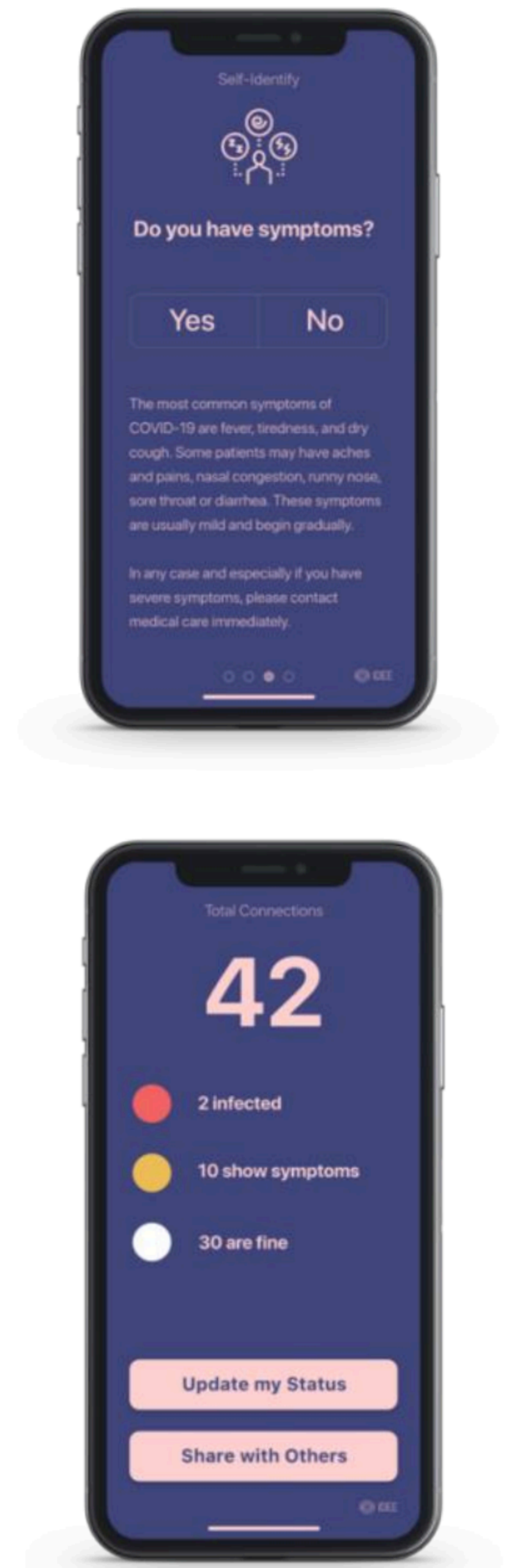## Ensuring people's digital interactions are trustworthy and private.

IDEE transforms our digital interactions with trustworthy digital identities backed by truly password-less authentications and authorizations.

The use cases are endless. Given the COVID-19 crisis, IDEE developed an app to help health authorities fight the spread.

Individuals who have a reasonable suspicion that they are infected can use the app to pass on this information quickly and anonymously to their direct and extended contacts. This allows everyone in the chain to immediately follow the official course of action when symptoms appear. Test results -where applicable, can be displayed or scanned to comply with 3rd party requirements e.g. building, venue or stadium access.

FightTheSpread is destined to be chosen by regional and national health authorities who value privacy and data protection. Once endorsed FightTheSpread can immediately include the contact tracing technology proposed by Apple and Google.

Together, this created an anonymous but actionable information network that can help prevent unnecessary quarantines and freedom-limiting measures.

About IDEE

Headquarters: Munich
Founded: 2015
Employees: 16
Fundraising: Series A

IDEE is a software company located in Munich that creates a re-usable and password-less digital "Identification Cards" so users can checkout instantly, anonymously verify their age and more. IDEE leverages the user's smartphone, cryptography and blockchain technology, to create digital identities that the user can exchange, businesses can trust, and hackers cannot steal.

To stay up to date on the latest health technology startups, join the Plug and Play Platform. Our Insurtech accelerator program runs twice a year boosting our startups through corporate business development, networking and pitch events, world-class mentorship, and the potential for investment.

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