

BIG DATA REPUBLIC

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Visualizing Big Data on Small Screens



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Gartner predicts that sometime this year [mobile phones will overtake PCs](#) as the most common web access technology worldwide. A growing preference for mobile devices is creating a challenge for enterprises that want to give key employees easy-to-view access to big data analytics.

As more workers begin using mobile devices to view, analyze, and visualize large data sets, software developers are looking for ways to present meaningful big data insights on small screens.

The 6.5-inch problem

Most smartphones have screens measuring under 6.5 inches diagonally. That doesn't give developers a lot of room to work with, so many are focusing their data visualization efforts on tablet devices.

[ZoomData](#), for instance, offers a data visualization system that transforms real-time big data streams into three-dimensional tactile data art. Apple iPad and Android tablet users can use the technology to pinch-zoom through intricate visualizations of their data from the highest to lowest levels, all updated in real time. ZoomData supports the visualization of large data sets from multiple data sources, such as social media, enterprise systems, and Hadoop HDFS.



Big data visualization is making its way to mobile devices.

Another company tackling the challenge of visualizing data on small screens is [Pentaho](#). The firm's software aims to help users to quickly and efficiently discover, visualize, and explore large volumes of diverse Hadoop, MongoDB, Cassandra, and HBase data. A mobile version of the software brings interactive analysis, rich visualization, dashboards, and operational and enterprise reports to Apple iPads. The product is touch-enabled, including support for native gestures, giving users a true mobile experience.

Utilizing pre-existing maps

Yet another vendor zeroing in on small-screen big data is [Moonshadow Mobile](#). The company, which specializes in data mapping, allows users to layer data, such as census results or worker addresses, directly onto Google or Bing maps. The cloud-based technology supports up to hundreds of millions of records. Mobile device users, such as salespeople or political campaigners, can call up maps containing various types of rich data as they travel via a native app or a web browser.

Big-time big data players are also beginning to address the needs of mobile device users. [SAS](#), for instance, touts its SAS Visual Analytics product as a high-performance, in-memory tool for exploring large data sets via web reports or mobile devices. The software helps users spot patterns, identify opportunities for additional analysis, and convey visual results on an iPad or an Android tablet.

At least one mobile device vendor, [Nokia](#), also understands the need to make big data analytics usable on portable devices. Through its [Nokia Mobile Data Challenge](#), a large-scale research initiative aimed at generating innovations in mobile device research, the company is looking to encourage mobile solutions for the analysis and visualization of big data.

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