

## EOLAS TECHNOLOGIES FILES PATENT INFRINGEMENT LAWSUITS

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TYLER, Texas -- Internet technology developer Eolas Technologies Inc. is announcing federal lawsuits filed today to assert the company's intellectual property rights based on a groundbreaking patent.

Eolas Technologies conducts leading-edge research and development to create innovative technologies in the areas of interactive embedded and distributed applications, systems, data analysis, visualization, collaboration, and networking. Over the last two decades, Eolas' innovations have enabled corporations around the world to enhance their products and improve their customers' website experiences by enabling World Wide Web servers, in conjunction with users' browsers, to act as platforms for fully interactive embedded applications. This advanced technology provides rich interactive online experiences for Web users worldwide.

The lawsuits, filed in the U.S. District court for the Eastern District of Texas, asserts claims on a recently-issued Eolas patent, U.S. Patent No. 9,195,507 ('507 Patent). The '507 Patent embodies technology first demonstrated publicly in 1993, enabling Web servers and Web browsers for the first time to act as platforms for fully-interactive applications. This advanced Internet technology provides rich interactive online experiences for billions of Web users worldwide. The Patent Office granted the '507 Patent in November 2015.

The inventions stem from the work of the inventors at the University of California, San Francisco ("the University"). In the early 1990s, the University assembled a team of scientists and computer programmers to form the Center for Knowledge Management. The University was (and is) world renowned for biomedical research. The University selected Dr. Michael Doyle as Director of the Center for Knowledge Management due to his expertise in biomedical imaging, information security, and hypermedia design. It also selected David Martin, an expert in computer system design and publishing on the Internet, and Cheong Ang, a world-class computer programmer with expertise in 3D visualization and remote computing, to join the team.

As part of the Center for Knowledge Management's mission, the University tasked Dr. Doyle and his team with developing ways to make scientific research available to researchers and physicians around the world. Dr. Doyle had long been interested in the Carnegie Collection of Human Embryology, which includes a population of over 650 human embryos on microscope slides collected from the late 1800s to the 1950s from miscarriages and autopsies, and preserved at the National Museum of Health and Medicine in Washington D.C. The Center for Knowledge Management recognized that the Carnegie Collection could be of vital importance in helping researchers and physicians understand early human development and detect and treat birth defects. However, the Carnegie Collection was unavailable to most researchers, because it was sitting in a museum.

The Center for Knowledge Management created the "Visible Embryo Project"—an effort to develop a way to make 3D images of the Carnegie Collection's embryos available to researchers and physicians all over the world using the then brand new World Wide Web. The University team wanted researchers and scientists to not only be able to view images of the embryos, but

also to be able to interact with the images—to rotate them, view them from different angles in 3D, take measurements of the images, move them like they had the specimens in their labs, and, most importantly, use this information to make medical discoveries and help mothers deliver healthy babies.

Working together on a white board, the University team came up with a novel idea: storing the Carnegie Collection's digital images on powerful server computers that researchers and physicians could control from their own computers located anywhere in the world. The University team created a system where the user's personal computer could tap into powerful remote computers, allowing researchers to access and interact with the massive Carnegie Collection of digital images without having to download the entire collection to their personal computers.

In the first few months after conceiving of their invention, the University team made about two dozen presentations regarding their breakthrough. They met with organizations like the National Library of Medicine, the National Museum of Health and Medicine, and the High-Performance Computing Conference. Later, the Visible Embryo Project program led to several new research projects, including a contract from the National Institutes of Health funding development of new kinds of applications that would work with powerful computers over high-speed networks. As part of this project, the University team reconstructed over 30 embryos from the Carnegie Collection and made them available on computers at the San Diego Supercomputer Center at the University of California San Diego. As a result of having access to this data, Dr. Charles Paidas at Johns Hopkins University was able to compare the reconstructed Carnegie Collection data to 3D ultrasounds to detect birth defects and plan intrauterine surgeries to correct them.

Today, this powerful idea is widely used to deliver interactive content over the Web, transforming the Web into an application platform. A user's personal computer is able to tap into powerful remote computers without having to download large amounts of data to their local machine. The applications in part run remotely and the user interacts with the application data as if on their personal computer. Today, this powerful tool is popularly referred to as "The Cloud," and is used to deliver interactive content over the Web.

Many leading companies have licensed the invention, including Microsoft Corporation; Oracle Corporation; Adobe Systems Incorporated; Texas Instruments Incorporated; Office Depot, Inc.; CDW LLC; Staples, Inc.; eBay Inc.; JPMorgan Chase and Co.; Citigroup Inc.; The Go Daddy Group, Inc.; Argosy Publishing, Inc.; Rent-A-Center, Inc.; and Frito-Lay, Inc.

The patent infringement lawsuits name some of the world's leading companies based on their unlicensed use of the Eolas patent.

The companies named as defendants include Seattle-based Amazon.com (NASDAQ: AMZN); Mountain View, Calif.-based Google Inc. (NASDAQ: GOOG); and Bentonville, Ark.-based Wal-Mart Stores, Inc. (NASDAQ: WMT). The cases are Eolas Technologies Inc. v. Amazon.com; Eolas Technologies Inc. v. Google Inc.; and Eolas Technologies Inc. v. Wal-Mart Stores, Inc.

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