![eyefactive interactive·systems]

WHITEPAPER: Q&A ◆ SOURCE**FORGE**

FIRST B2B TOUCHSCREEN APP PLATFORM

INTRODUCTION

The rapidly growing e-commerce sector has increasingly forced retailers to rethink and invest in the digitization and innovation of their store concepts. The Covid-19 crisis has intensified this effect. Even though customers still show great interest in shopping in local shops and stores, they now expect more than just good service and products of good value. According to a study from 2020 it will mainly be the "experience" customers will expect and want from shopping in the future.

In an interview with co-founder Matthias Woggon, Sourceforge explores how interactive technologies, software solutions, and touchscreen systems can be deployed to digitalize the point of sale in order to create true experiences for customers on-site and help retailers develop omni-channel solutions effectively connecting the online and offline world.

As a pioneer in the field of „Interactive Digital Signage", eyefactive develops large-format interactive touchscreen solutions comprising hardware, software, technologies and services. The world's first B2B app platform offers customizable apps, that can be used for all large touchscreen systems at a fraction of the time and effort.

Q: WHY AND FOR WHAT PURPOSE WAS EYEFACTIVE FOUNDED?

eyefactive was founded in 2009 in Wedel (Schleswig-Holstein), since 2019 headquarters are in Hamburg. Two years earlier, at the University of Applied Sciences Wedel, the two company founders had developed a technology that could convert huge screens into interactive surfaces. This was pretty much at the time the first iPhone hit the market - and touchscreen technology was still unknown to the public.

In comparison to Apple's first smartphone, our interactive systems could easily be several square meters in size and offered unlimited touch points, so multiple people could interact with each other simultaneously. We call this Multi-User Technology.

Since then, of course, the industry has evolved. Today, hardware technology mainly comes from Asia, standardized screens are getting bigger and cheaper. Nevertheless, there is a lack of standards, especially in the field of software. eyefactive are successfully tackling this problem. We are still on our mission to inspire and amaze people with interactive touchscreen solutions and to create the advanced human-computer interaction of the future.

Q: WHAT IS INTERACTIVE DIGITAL SIGNAGE?

First of all the term „digital signage" roughly summarizes display technology in public spaces, which is why it is also referred to as „Digital Out of Home (DOOH)" in this context. It comprises the digitalization of advertising and information spaces, from price tags in the supermarket to information totems and shop window screens to huge video walls.

Interactive (Digital) Signage in this context means the active involvement of an otherwise passive viewer in the communication process.This can be achieved by the use of various interactive technologies. Interactive Signage is the logical progression in the growing digital signage industry.

Q: WHAT ARE THE BENEFITS OF INTERACTIVE SIGNAGE?

According to learning theory people can recall content the better, the more senses are adressed. Interactive systems actively involve the user in the communication process. This bears key advantages making Interactive Digital Signage solutions almost indispensable in the future:

- The active involvement of the user enables content to be conveyed in a more sustainable and effective way.

- Content and information can be individually selected by the user and thus can be presented more effectively.

- Advertising can be individually targeted and customized for respective users.

- Playful elements can positively influence the perception of customers and provide true experiences, for example at the point of sale.

Q: WHAT ARE THE MAIN CHALLENGES FACING RETAIL TODAY AND WHAT SOLUTIONS DO INTERACTIVE TECHNOLOGIES OFFER?

A large proportion of retail sales around the world are still happening in local stores. Customers go to stores more often than before, and local shopping is still popular with the digital natives of Generation Z. However, the strong growth of e-commerce is undeniable. Additionally, the Covid-19 crisis has acted as an accelerator and more than ever forces retailers to innovate.

According to an analysis from 2020, the „experiences" are the factor attracting customers to shops and shopping malls in the future – and these e-commerce can not offer. Interactive technologies are the key to true customer experiences on-site. They also fulfill the promise of true omni-channel marketing that effectively connects online and offline.

To name but a few examples of interactive technologies for the point of sale:

Touchscreen systems in their various formats such as interactive tables, kiosk terminals or video walls can be easily and intuitively operated by the customer. This saves customers waiting times and the retailer personnel costs. A combination of appropriate software and appealing multimedia content facilitate the presentation of the entire product portfolio. It can be quickly and easily found by means of virtual assistants and interactively experienced using intuitive multitouch gestures.

For instance, if customers used such a system to fill a virtual shopping cart, then they could either pick it up at the checkout at a desired time („Click & Collect") – or download the shopping cart to the smartphone via a QR code and complete the order on their phone.

Object recognition on touchscreen tables constitutes another exciting technology: as soon as customers place a product of interest on the interactive screen, further information appear in its immediate vicinity on the display, which then can be navigated and experienced via touch control. It could not be easier and more intuitive.

Q: WHAT PRODUCTS AND SERVICES DOES EYEFACTIVE OFFER?

What has already been successfully established for smartphones and tablets in the private consumer sector, eyefactive offers in large-format to B2B clients: Interactive signage solutions XXL with multitouch and multiuser technologies, software, hardware and services.

eyefactive runs the world's first and only app store for large-format touchscreen systems. Customers and partners can customize apps with their own content, designs and layouts - without any programming skills required. All apps are based on eyefactive's very own software technology, which enables the simultaneous input of unlimited touch points (multi-touch) by any number of users (multi-user) at high-level performance.

The platform consists of the following components:

- Apps: Customizable apps, ready-to-use, and combinable

- AppStore: Online marketplace

- AppSuite CMS: Content management software for all touchscreen systems

- AppCloud: Cloud management for apps, projects and systems

- AppSDK: True multi-touch and multi-user software technology

Furthermore, eyefactive collaborates with various international partners to be able to offer customers an extensive portfolio of interactive touchscreen systems comprising multitouch screens, tables, totems, kiosk terminals and video walls. As a consequence, customers receive ready-to-use hardware and software solutions, combined with additional technologies such as object recognition on touchscreens, payment solutions or retail analytics.

Q: WHAT PROBLEM DOES EYEFACTIVE'S SOFTWARE PLATFORM SOLVE?

While the demand for interactive solutions is rapidly growing in the market of „digital signage", standard software like it is available for smartphones and tablets is still missing for the B2B sector. Although a variety of large-format hardware systems to choose from are on the market today, there have been no standard apps available yet, that could be downloaded and installed from an app store.

Today, companies often turn to external agencies or developer studios, who then implement individual software projects, usually at very high costs, which bear no relation to the falling prices of touchscreen hardware. In addition, these service providers often lack the know-how and technologies to develop truly effective software solutions for large-format, interactive touchscreen systems. This typically leads to applications that resemble a website more than providing a truly innovative, interactive multitouch or multiuser solution.

The eyefactive app platform closes this gap: Customers and partners can directly download standardized apps, customize them and use them immediately for their interactive signage projects. This is as straightforward and fast as the installation and use of apps on our smartphone or tablet.

Q: WHY DO LARGE-FORMAT TOUCHSCREEN SYSTEMS REQUIRE SPECIAL SOFTWARE?

Smartphones and tablets basically are (small) touchscreens, so why not just choose from the thousands of apps on Apple's and Google's app platforms? Although this idea maybe an obvious conclusion: There are many different reasons why apps from these popular app stores are not suitable for large-format touchscreen systems. We have listed the most important ones below:

B2B USE CASES

Probably the most decisive reason lies in the different scope of use of the app categories: Smartphone apps are designed for personal use, whereas apps for larger touchscreens are designed as B2B solutions for companies, i.e. sales promotion, information, entertainment or collaboration. A simple example: No one would think of logging into a consumer app such as Twitter to read their private messages on a large screen in a shopping mall. This would be way faster on the smartphone – and ensures privacy. A shopping mall would be more concerned about guiding customers to the right stores, presenting special offers and advertising or promoting interactive customer loyalty. B2B apps for such purposes can not be found in app stores for smartphones.

TECHNOLOGY

Every new medium requires appropriate technologies and content to make the most of its functional performance. There is a good reason why there are specifically developed apps for many services and providers, when - in many cases essentially possible - we could just use the browser of our choice to surf to the provider's website instead. The reason is: a smartphone app makes use of a smartphone's full performance potential by means of the underlying software technology, which results in particularly better usability and faster performance. Hence: a significantly optimized user experience. Today, there is usually even a separate optimized version of an app for both smartphones and tablets, although the sizes of the respective displays do not differ exorbitantly.

Touchscreens on the market today are significantly larger than the ones used in smartphones and tablets. With sizes of up to 86" they facilitate completely new user interactions and gestures, for instance the use of a whole hand or even both hands. When taking a look at interactive tables it becomes apparent, that a new software approach is needed, when several people are using software on all sides of the table simultaneously. In this scenario the usual set orientations are nonexistent. There is no top and bottom, no up and down in the conventional sense, that is applicable to all users. Furthermore, the simultaneous interaction of multiple users is a completely new form of human-computer interaction! We call it Multi-User Technology.

When individual screens are combined to form interactive video walls or tables, one is faced with gigantic interactive surfaces - way beyond 8K resolution. Clearly at this point it should have become apparent that a simple website as software solution is obsolete.

INDIVIDUAL CONTENT

When interactive apps are used on large touchscreen systems in stores, museums, hotels or restaurants, it is above all a matter of displaying your own content in your own design and individual layout. This requires the appropriate functions of a typical content management system. In contrast to smartphones apps, all apps from the eyefactive app store can be customized depending on their scope of functions.

Q: TO WHAT EXTENT CAN LARGER PROJECTS BE REALIZED VIA THE APP PLATFORM?

Various new cloud features facilitate customers and partners to manage any number of projects and systems online, change contents and perform updates. Also monitoring as well as various usage statistics can be implemented via the eyefactive app platform in the future. The administration can be simply performed via the browser, regardless of your own location. Currently the expansion of these cloud and analytics functions are the focus of further development at eyefactive.

Q: WHICH OTHER MARKETS CAN BENEFIT FROM INTERACTIVE EXPERIENCES?

The possibilities of Interactive Digital Signage are manifold: In addition to the focus market „Retail", large touchscreen solutions in museums for instance can inform visitors in an interactive manner. Guests in restaurants can choose their favourite toppings for their favourite pizza base, and order digitally and autonomously at interactive touch tables or kiosk terminals. In companies, interactive touchscreen systems provide individual access to relevant information and enable real teamwork on huge video walls or multitouch tables.

In the future, interactive signage technologies can be used effectively wherever companies want to provide their customers, visitors or employees with a true customer experience.

TOUCHSCREEN APP PLATFORM

Start the tour, browse apps & widgets and download your free version of AppSuite CMS at:

www.multitouch-appstore.com

INTERACTIVE SIGNAGE XXL

Find out more about our eyefactive's interactive touchscreen technologies and products:

www.eyefactive.com

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