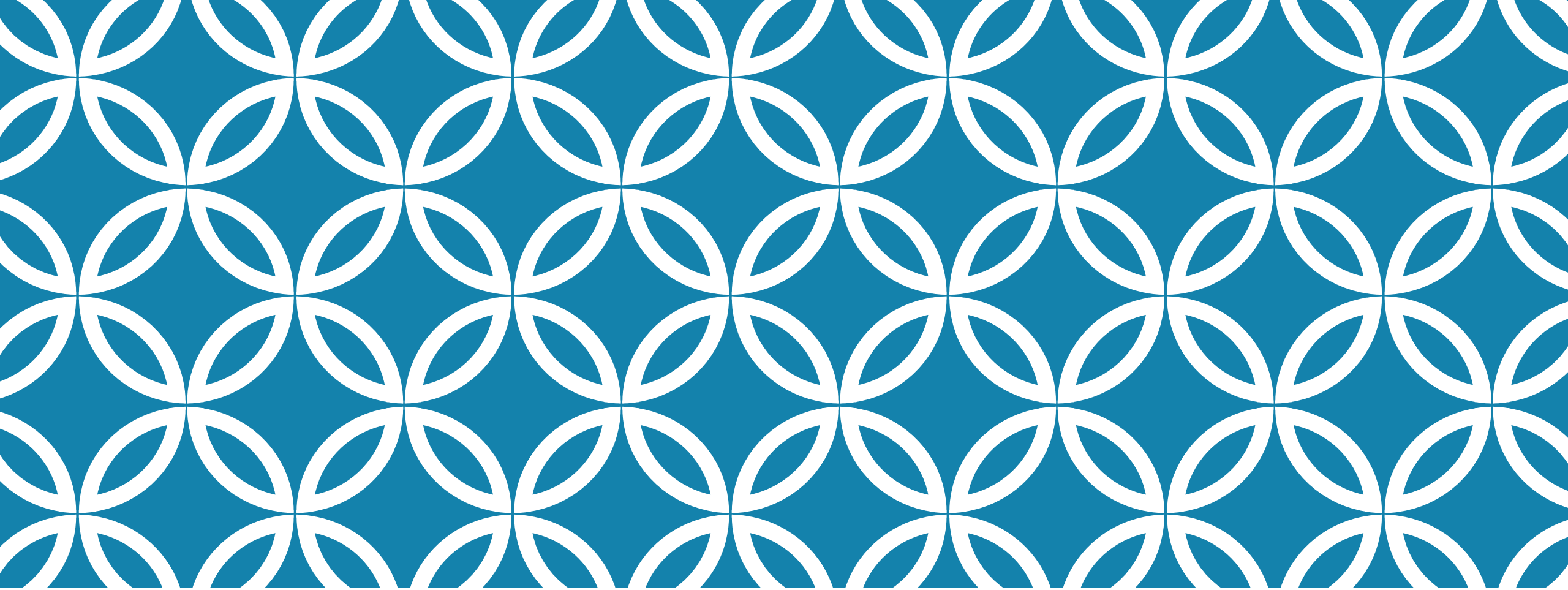

WELCOME

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337CS22013

Success and failure stories of software engineering

SUCCESS STORIES OF SOFTWARE ENGINEERING

WhatsApp

WhatsApp is a freeware, cross-platform messaging and Voice over IP (VoIP) service owned by Facebook. It is used to send text messages and voice messages, make voice and video calls, and share images, documents, user locations, and other media.

WhatsApp has 1.5 billion active users in over 180 countries and you will be delighted to find out that even WhatsApp is no new to software outsourcing. WhatsApp founders Jan Koum and Brian Acton started the startup with a small amount of cash and were determined to save costs but at the same time didn’t want to compromise on quality.

• UNILEVER

Unilever is a transnational consumer goods company. Its products include food and beverages, cleaning agents, beauty products, and personal care products. Being such a big company with hundreds of brands all over the world, Unilever still chose to outsource its software development.

Unilever being such an industry giant had become a loose federation of business groups and geographies operating across 24 countries, all using multiple ERP systems. With so many different finance and accounting processes, the result was impeded growth. So, the company implemented a total business transformation initiative resulting in a single ERP system across Europe that encompassed outsourcing initiatives in finance as well as IT and HR.

SLACK

Slack is a cloud-based proprietary instant messaging platform. It's a chatroom for the entire company designed to replace email as the primary method of communication. Its workspaces allow users to organize communications by channels for group discussions or for private one-to-one messages to share information, files, and more all in one place.

Slack is known to outsource its product design to a web designing company, including the logo design, web design, and mobile app design - almost the entire look and feel. Slack is used by more than 10 million daily active users and earns 401 million USD revenue in 2019.

PRE-FACE BOOK RESUME

Mark’s fascinating life story starts in 1984 in White Plains, New York.so it’s evident that Mark Zuckerberg’s resume was impressive enough, even before founding Facebook – But get this, he wasn’t some IT prodigy. He was more of an entrepreneur and less of a developer. It’s a pretty less-known fact that he actually majored in psychology at Harvard, not computer science. On the website TopCoder, you can see Zuckerberg’s rankings in terms of programming, which was not all hat high.

TREBLE

Treble a developer with years of experience, came up with the idea for Treble while running a development agency. Frustrated with the time-consuming tasks of providing integration support and writing API documentation, Treble saw a need for a tool that would streamline these processes.

After months of development and testing, Treble was born and quickly gained traction among clients and developers worldwide. With a seed investment of $1.4 million and over 200 customers, Treble is poised for future growth and success.

FAILURE STORIES OF SOFTWARE ENGINEERING

Air Traffic control in LA Airport

The air traffic control has the important responsibility of informing aircraft pilots about relevant information regarding weather, routes, the distance between other airplanes, and more. Failing to communicate with aircraft pilots promptly could result in catastrophe. On September 14, 2004, at 5 P.M. air traffic control at the LA airport lost voice communication with approximately 400 airplanes being tracked in the southwestern United States and many planes were headed towards each other. So what happened? The primary voice communication system shut down unexpectedly. To top it off the backup system failed a few minutes after it was turned on. The cause of the error was that the communication system had an internal timer that ticks off in milliseconds. After it reached zero, it could not time itself so it would shut down. The outage affected 800 flights across the country.

• TOYOTA

In the mid-2000's many Toyota drivers were reporting that their car was accelerating without them touching the pedal. After a series of accidents, which lead to investigations, investigators discovered that software errors were the cause of the unintended acceleration. In this case, there was a series of things wrong with the software installed in Toyota cars: Memory corruption, wrong memory handling, disabling safety systems, systems with single points of failure, and thousands of global variables. Toyota recalled millions of vehicles and Toyota's stock price decreased 20% a month after the cause of the problem was discovered. This case demonstrates the consequences of not giving enough attention to good programming practices and testing as a result of wanting to launch the product.

National Health Service

I don’t know what is worse: Not taking your medicines at all or taking the wrong medication. Either way, at least 300,000 heart patients were given the wrong drug or advise as a result of a software fault. So, what happened? In the year 2016, it was discovered that the clinical computer system SystmOne had an error that since 2009 had been miscalculating patient’s risk of heart attack. As a result, many patients suffered heart attacks or strokes since they were told they were at low-risk, while other suffered from the side-effects of taking unnecessary medication

GRAND THEFT AUTO-THE ULTIMATE SOFTWARE DISASTER

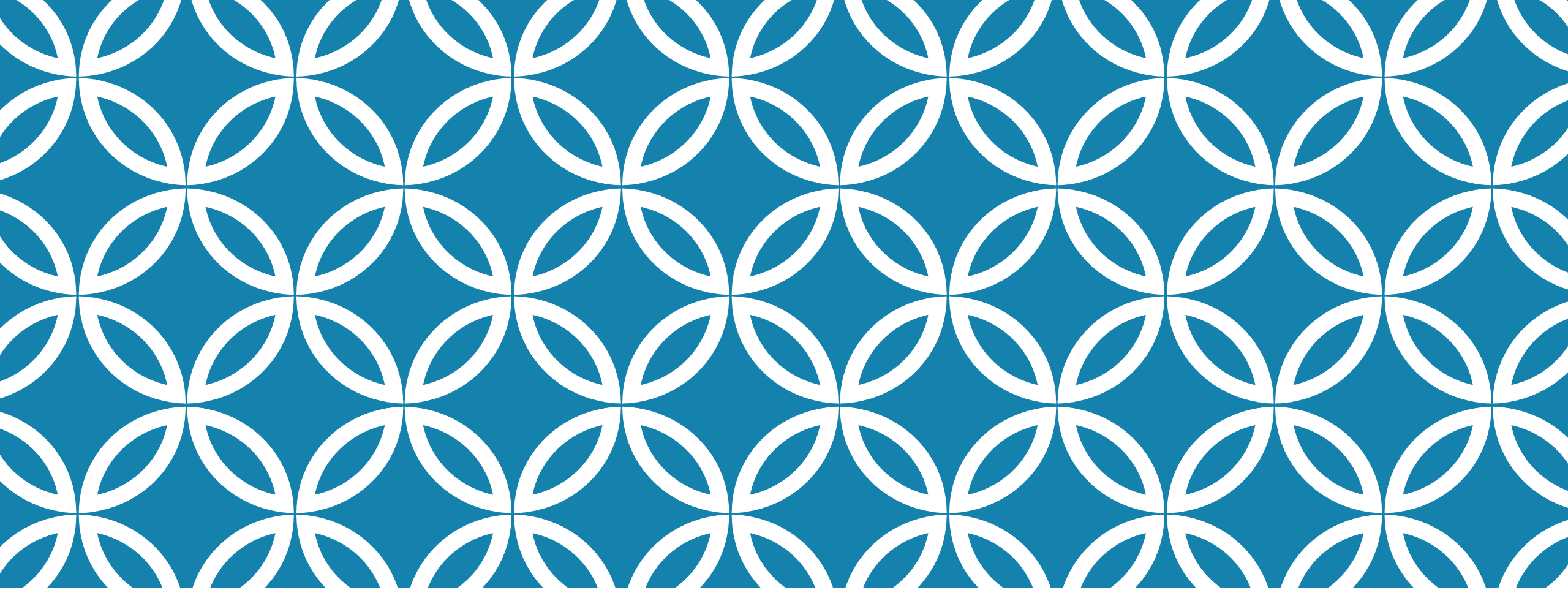
Software disaster plagued the gaming industry as well. A bug in call of Duty warzone forced the developer to remove a highly anticipated new feature at the last minute. The software disaster embarrassed the company right before the holidays. And of course ,one of the most information software disasters all time remains Grand Theft Auto Technical issues bad graphics poor control and more made it an epic failure.

The gameplay is entirely different from the previous game in the series and its not for the better. The graphics are worse than every before and don't even begin to compare with other games on the market today.The controls and difficult to use which makes it nearly impossible to pay the game without dying numerous time.

Fighter Plane Glitch

A couple of years ago, a software glitch in an F-35 Joint Strike Fighter jet was identified to have a bug. The bug actually caused planes to incorrectly detect and lock in on the wrong targets when flying in formation.

As the company explained, each of the planes flying in formation must detect a target from varying angles. But the software was unable to differentiate between one target and multiple targets. In essence, the F-35s were seeing double. (And that’s not something you want when flying in formation at high speeds and high altitudes.)



THANK YOU