# Digital Transformation: Implementation of COVID-19 Technological Practices Report

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**Report Topic:**

Implementation of technological practices to improve workplace communication  during

COVID-19 pandemic


Dear esteemed faculty and affiliates,

I put together several different project proposals and technological implementations to boost

company efficiency in this confusing time. The COVID-19 pandemic has created a mass

in-person social disconnect due to quarantine restrictions. As we adapt as a community we

must adapt our business meaning updating our technologies utilized. My goal is to implement

working technologies and fixes in order to enhance the workplace environment and

communication. This would foster a more comfortable work environment, ensuring safety of all

and fluidity of work.


Thank you for your time, Michael Anderson.


Michael Anderson, CIO

May 3rd, 2024

Metro Insurance Inc.

**Executive Summary**

**Purpose:**

I am the Chief Information Officer for an insurance firm in the metropolitan Milwaukee area, Metro Insurance Inc. Given the current predicament with the COVID-19 pandemic and quarantine limitations, we have decided to implement new progressive technology. This would permit us comfortability and fluidity in the workplace establishing a better environment. This report encapsulates the details of the new implementations and their beneficial effect on our workplace. I aim to explore ways other organizations utilized similar implementations and how it affected their workplace. My findings may not be limited to just the COVID-19 virus given future quarantine emergencies this could prove beneficial once more.

**Main Objectives:**

**Contactless Interaction:** This section of the report elaborates on the relationships between contactless interaction and intention to use a technology. It is known that contactless interaction garnered a large amount of attention due to fear of sickness. We want to utilize this to our advantage to retain more engagement with our technologies overall.

**Ease of Communication:** This section of the report explores the importance of easy means of professional communication. In the form of an application we could provide seamless communication to our clients, employees, and affiliates.

**Advanced Monitoring:** This section highlights the importance of advanced monitoring systems leveraging IoT devices. This would permit a safer workplace environment, and occupancy monitoring.

**Strategies for Success:**

**Metro Insurance INC Company Application:**

This report found that a multitude of the firm's weaknesses can be mended with the deployment of a company wide application. I suggest that we work on making this application uphold our company ideals, and security guidelines. Doing so solidifies fluidity in this confusing time of the pandemic.

**Easy communication feature via application:**

In these findings ease of communication is a crucial point in workplace efficiency. I suggest that we work with our development team to perfectly craft an open communication chat feature for affiliates.

**Implementation of IoT COVID-19 Processes:**

I recommend that we utilize IoT devices and systems in order to boost employee safety and comfortability. We can adhere to COVID-19 guidelines and utilize them to ensure health is a priority.

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**Introduction**

The COVID-19 pandemic is currently shaking the way that businesses are able to operate. Amongst the confusion several competing firms have had to close their doors and completely shut down in-person contact. We have had the continuous opportunity to practice safe guidelines on-site and stay efficient. In this rapidly changing time failure to adapt in this business can lead to failure. Along with employee/affiliate contamination or worse the further spread of the virus. I plan to take several actions toward encapsulating every affiliates safety leveraging technology. These plans and processes will prove more effective than the competitors and more protective of our own because of its implementation of tech.

Metro Insurance Company has a long-standing moral of community and security to uphold. We take employee safety concerns extremely seriously, and furthermore we make note of comfortability/satisfaction. We will be working closely with employees, and affiliates throughout the implementation of these new processes. In order to ensure this approach will involve, ensuring transparency, support, and continuous improvement throughout the transition.

**Discussion**

**Contactless Interaction:**

Given the current condition of the world we are seeing more and more contactless interaction in an attempt to adapt to the industry. I believe that we can adopt some ideas from these trends in business. The firm could benefit from this form of communication, as it provides specific benefit to multiple facets of the company. It provides better relationships between employees and technology, and amongst each other. As well as a clear benefit of zero spread risk of the highly contagious virus.

We are confident that the use of contactless interaction would help mitigate any current health risk remaining in the firm. We want to provide an improved workplace overall, and this element of communication via technology would minimize contraction. This reflection of broader trends enables us to provide a more convenient environment for clients as well.

Contactless interactions are the boost to corporate communication we need to stay effective, and safe. In the article "Guest Editorial: The Role of Digital Technologies in New Normal: the Emergence of Contactless Digital Technologies and Services" we see Chang, Younghoon describe the potential contactless has. He described the roles this form of communication plays in satisfaction, and retention. The author describes a study in which researchers tested satisfaction and net benefits after utilization of mobile apps and self-service kiosks. These were the conclusions, "As the first empirical study on these variable configurations, it represents a feasible direction for hospitality and service industries to make successful digital transformation using contactless technologies. (Lee et al., 2023)" Since there are measured benefits to this implementation I feel this would be our next steps as a firm. This element of communication

would be a step in the right direction for several overarching problems the pandemic has presented.

**Ease of Communication:**

Creating a workplace environment that fosters an ease of communication can prove to minimize contact and effectively boost efficiency during the COVID-19 pandemic.We examine how perceived closeness and communication visibility can impact employees amongst each other. The article "Organizational Information and Communication Technologies and Their Influence on Communication Visibility and Perceived Proximity." provides close insight on these aspects of easy communication. I believe that if we as a corporation provide a clear simple line of communication for all affiliates it will reduce need for contact and overall reduce risk at work. An employee can convey a simple message to a colleague digitally and avoid any contamination or contraction of the virus.

The creation of open lines of communication can be seen benefitting more than just business and we can see the applied demonstration of this in life. We see more opportunities to communicate and provide more success in sports, & even in cooking. This is an area of communication that will continue to flourish even after the pandemic and provide effectiveness to the workplace.

Ward Van Zoonen wrote a journal on the use of ICT's (Information & Communication Technology) and their relationship with ease of communication. More specifically mentioned earlier perceived closeness and communication visibility. Here we see an example Van Zoonen stated, " A study conducted in a student-based virtual team context (Eisenberg et al., 2021) found that both verbal (video conferencing) and text-based (instant messaging) synchronous communication increased perceived proximity, but the effect varied depending on virtual team members' language skills." This shows that the only thing impacting the increase of easy communication is the language differences. The study concluded that these forms of video conferences and texts were proven beneficial to perceived proximity. We also get more context on the concept of perceived proximity and why that means anything to how easy communication is to use. The journal states, "Perceived proximity reflects the perception of how close or far other organizational members seem." Van Zoonen stresses the importance of perceived proximity as the physical workplace shrinks because of the original importance of proximity in general. In terms of communication, speaking to someone face to face, one on one is as easy as it gets. When a client or affiliate is restricted to screen suddenly how close they feel they are becomes more important than how close they physically are. In our case implementation of easy communication can be make or break for employee satisfaction, and comfortability in this confusing time.

**Advanced Monitoring:**

Keeping clients and affiliates secure, safe, and comfortable is an urgent issue as of late, given the health crisis in the world. We can continue to protect our community via implementation of

advanced monitoring systems. We will dive into an article on some of the most effective COVID-19 monitoring systems right now. Written by Pietro Tedeschi, the article "IoTrace: A Flexible, Efficient, and Privacy-Preserving IoT-Enabled Architecture for Contact Tracing." describes how we can utilize contact tracing technology to ensure safety. IoT devices can provide a real insight to creating a better monitoring system.

We can utilize multiple systems, such as contract tracing, occupancy trackers, and temperature trackers to ensure affiliate and client safety. This has been proven and adopted by several other institutions like universities, and government buildings. This proves that even at high quantities of people these implementations are effective.



Tedeschi claimed that, "Contact tracing promises to help fight the spread of COVID–19 via an early detection of possible." He then goes on to elaborate upon this,"Digital contact tracing is one of the most promising technological solutions, and its premise is quite intuitive" We find these claims to be true as Pietro has worked extensively with these IoT devices and created a framework for IoT architecture. The image to the left depicts the IOT infrastructure in different environments. This provides useful insight to conceptualize how to deploy monitoring devices like this. This would give us better control over data and safety in regard to the COVID-19 pandemic.
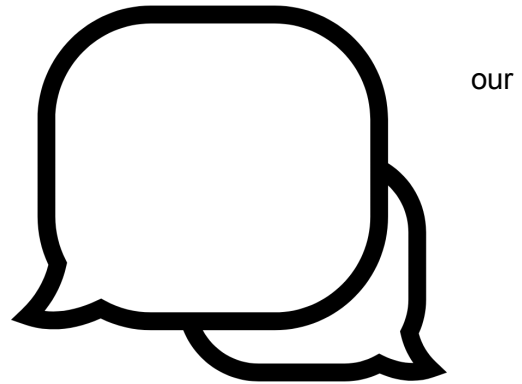
**Recommendations**

**Metro Insurance INC Company Application:**

The new company application will streamline all insurance processes, and elevate customer experience. The world already is fast-paced and given the large shift digitally in the pandemic we located the need for this extra tool. The strengths this application will bring to the corporation exceed any expectations. This app will provide transparent ease of communication and efficiency. This deployment will be secure and will be the future of convenient communication in the company. A limitation of the deployment of this application could be the sole factor of it being new. Sometimes new technology can be hard to implement if it is too complex. But it is not the complexity we are aiming for, we aren't searching for a niche here. We have a proven plan to execute, and doing so will bring success. We know this works and we know that we could benefit from this implementation.

**Easy communication feature via application:**

As mentioned before this new application will be the forefront of communication for the corporation. We have stressed the importance of ease of communication within this report, we will verify this by                                                    our latest feature. We have implemented a full chat and teams hub feature into the framework for the application. This would maximize communicative effectiveness and bridge the gap that can be created due to digital communication. The concept of perceived proximity (Van Zoonen *et al.* 2023) can be brought to the forefront and given solutions. The chat function would permit direct messaging, group messaging, hidden messaging and more access to transfer information in different ways. The team hub function can be used to hold virtual zoom style meetings, hold announcements and more. This all will contribute to the overall bolstering of the firm's communication systems. A limitation to recognize is the learning curve that may be considered when administering any new technology. There still will need to be training on utilization and communicating effectively within the already fluid app.

**Implementation of IoT COVID-19 Processes:**

I would like to recommend the implementation of a diverse set of advanced monitoring systems. Utilizing different IoT(Internet of Things) devices to leverage technology to enhance employee safety and experience. We can first do this via contact tracing sensors that record and monitor contact between clients via bluetooth. We can also implement occupancy monitors and environmental sensors to configure our HVAC system to better improve air quality with similar technology. We also want to implement temperature check stations to check for concerning or critical temperatures at checkpoints(a symptom of COVID-19). We then could monitor all of our new data on a cloud-based platform like AWS or Azure to be efficient.  Adopting this new framework of systems would provide strengths such as accurate health monitoring, workplace environmental boost, and new data. One limitation I plan to isolate is privacy concerns. Which is why as stated earlier personal information and privacy is a priority of ours and will be working closely with HR and affiliates.In order to continue to configure our systems, catering to our communities needs.

**Conclusion**

We will continue to navigate and adapt to the current state of the pandemic in many ways. Let this be a grandiose first step toward automating our corporation, our industry, and our experience. We will do so by achieving all three of our clear objectives; contactless interaction, ease of communication, & advanced monitoring. The recommendations are designed to ensure our objectives are met; Metro Insurance INC company application, easy communication feature via app, and implementation of IoT COVID-19 Processes. The state of the corporation will be positively affected by all of the precautions taken and we can be certain the workplace is safe as intended. Let's all now take the identified steps to ensure a safe and secure community.

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## Appendix