

# SMART PAPERS



BUSINESS IMPACT  
BRIEF

## The Role of 5G in Healthcare **Post-Covid 19 Implications**

**APUINSIGHTS**  
Product of APU Commercial Information Services LLC



SMART PAPERS

# DIGITAL FUTURES



DIGITAL FUTURES is an online content publication platform catering for technology business leaders, decision makers and users, by sourcing and sharing valuable information and best practices in connection to the latest emerging technologies trends and market developments that leverage capabilities and contribute towards enhanced enterprise-wide performance.

TAL FUTUR




WATCH  
DIGITAL FUTURES VIDEO



WATCH VIDEO

LEARN  
MORE



THE REAL  
OPPORTUNITY IS TO  
CAPITALIZE ON THE  
INEVITABLE CHANGES  
IN SOCIETY THAT  
WILL EMERGE IN THE  
POST COVID-19 ERA  
AND ENSURE THAT  
EVERYONE EMBRACES  
THE CAPABILITIES THAT  
THE 5G TECHNOLOGY  
WILL PRESENT.



# CONTENTS

<b>INTRODUCTION</b>	<b>5</b>
<b>SECTION 1: CHALLENGES OF IMPLEMENTING 5G IN HEALTHCARE</b>	<b>13</b>
<b>SECTION 2: THE BENEFITS OF 5G IN HEALTHCARE</b>	<b>22</b>
<b>SECTION 3: WHY COLLABORATION IS ESSENTIAL IN 5G HEALTHCARE?</b>	<b>52</b>
<b>SECTION 4: 5G BEST PRACTICES IN POST PANDEMIC HEALTHCARE INDUSTRY</b>	<b>60</b>
<b>CONCLUSION</b>	<b>71</b>



SMART PAPER

# INTRODUCTION



BUSINESS IMPACT BRIEF



This research presents an overview of the role of 5G in global healthcare market. In addition, it analyses the impact of future trends on the market while it provides a crucial guidance that aims to transform healthcare. Covid-19 crisis may be an opportunity for learning and improving.

5G drives the economy in post epidemic period permitting faster and better responses to future crisis through advanced technology. Remote health, home education, robotics innovations and autonomous vehicles could not only act as catalysts for

our recovery and readiness for future emergencies, but for reengineering operating models to enable new ways of social and business interaction.

The current crisis offers a new opportunity to educate and explain technology to citizens providing information supported by independent parties,

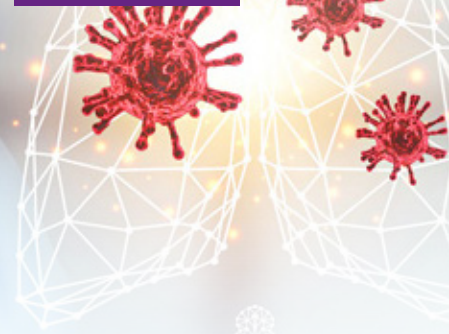
involving people in talks and debates or enabling a forum to open questions. Government, operators and scientific institutions have been forced to evaluate better theories around 5G regarding safety concerns. Proper education will help people to understand the technology and its potential impact on the society reducing the false

information spread and, ultimately, the delays caused by such incidences. Some interruptions in 5G implementation plans is inevitable, but it is an imperative for public and private stakeholders to join forces to minimize it, so that wider connectivity and better networks could help our recovery from this crisis. The real opportunity





## CORONAVIRUS COVID-19



is to capitalize on the inevitable changes in society that will emerge in the post Covid-19 era and ensure that everyone embraces the capabilities that the 5G technology will present. We have the chance to have a revolution in connectivity services rather than a gradual evolution.<sup>1</sup>

Medical care systems, public health programs, and individual client care approaches are forced to rapidly adapt to infection control measures, often without infrastructure or prior experience. The ideal social distance measures are where there is no chance of exposure or contact, as can be facilitated by remote technologies. Researchers who have studied and promised the potential of telehealth technologies therefore have an urgency to demonstrate how these tools might be quickly adapted for use in new clinical settings during the current crisis in particular, and in future. For this purpose, the solution provided through combining technologies, such as telemedicine, robot-assisted telesurgery social media, mobile applications and biosensors/wearables into clinical care delivery and research for chronic diseases.<sup>2</sup>

**[1]** CGI UK Group. (2020). *5G at the time of Covid-19: the real challenges and opportunities. IT and business consulting services.*

**[2]** Young, S.D., Schneider, J., (2020) *Clinical Care, Research, and Telehealth Services in the Era of Social Distancing to Mitigate COVID-19. AIDS Behavior, Vol (24), pages: 2000–2002.*





asymptomatic citizens from Wuhan because of cost of the test (the reagent was quoted as costing nearly USD 75,000).

Alternative diagnostic and screening tests for Covid-19 will be extremely useful. In this context, China has large datasets of cases positive for Covid-19 (>70,000 cases). Such AI algorithms can then be used as an initial screening tool for suspected cases (e.g., travel history to China, Iran or South Korea, or exposure to confirmed cases) so that patients at higher risk could have confirmatory laboratory-based tests or be isolated. Although most patients have mild cases of Covid-19, physicians have to apply the same level of intensive methods to isolate, treat and monitor all patients. AI algorithms could be developed to help physicians triage patients with Covid-19 into potentially three groups: the 80% who have mild disease, the 15% who have moderate disease and the 5% who have severe disease, including those at high risk of mortality. AI can also facilitate the discovery of novel drugs with which to treat Covid-19.<sup>68</sup>

**[68]** KPMG International. (2020). *Transforming Healthcare to re-emerge with private networks, 5G, and the Internet of Things.*

The opinion, analysis, and research results presented are drawn from research and analysis conducted and published by APU Research, unless otherwise noted.

The facts and data set out in this publication are obtained from sources which we believe to be reliable. This publication has been written in general terms and therefore cannot be relied on to cover specific situations; application of the principles set out will depend upon the particular circumstances involved and we recommend that you obtain professional advice before acting or refraining from acting on any of the contents of this publication. APU would be pleased to advise readers on how to apply the principles set out in this publication to their specific circumstances.

*Note:* While care has been taken in gathering the data and preparing the report we do not make any representations or warranties as to its accuracy or completeness and expressly excludes to the maximum extent permitted by law all those that might otherwise be implied, and we accept no legal liability of any kind for the publication contents, nor any responsibility for the consequences of any actions resulting from the information contained therein nor conclusions drawn from it by any party. We accept no responsibility or

liability for any loss or damage of any nature occasioned to any person as a result of acting or refraining from acting as a result of, or in reliance on, any statement, fact, figure or expression of opinion or belief contained in this report. The views expressed in this publication are those of the author(s) and do not necessarily represent the views of the APU or its network partners. Publications are submitted to as research contributions to its insight areas and interactions, and APU makes the final decision on the publication. This report does not constitute advice of any kind.

This document makes descriptive reference to trademarks that may be owned by others. The use of such trademarks herein is not an assertion of ownership of such trademarks by APU and is not intended to represent or imply the existence of an association between APU and the lawful owners of such trademarks.

**All rights reserved.** No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the publishers. Material content is used in accordance to Access Programs/ Subscriptions licenses.



Designed and produced by APU Insights Creative Studio

2020 © APU Commercial Information Services  
All Rights Reserved