Future of Healthcare and Artificial Intelligence (AI):

Practical Insights and Diverse Perspectives on AI in Healthcare Project Management 1

Introduction & Initial Interviews ²

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INTRODUCTION

"Al is a tool. The choice about how it gets deployed is ours" - Oren Etzioni (CEO of the Allen Institute for Artificial Intelligence (AI2)).

The transformative potential of Artificial Intelligence (AI) in healthcare extends far beyond the boardroom into the hands of healthcare workers and patients themselves. How and when will we see the impact of AI on healthcare's ground forces, such as the patients and healthcare workers on the frontlines of care? Let's hear from the experts in this field. This interview series on PMWorld Journal through 2024 explores perspectives from global experts, delving into the practical impact of AI on those at the heart of healthcare delivery.

Transcending mere theory and diving into the practicalities of harnessing Al's potential, the series delves into strategies and best practices for implementing AI solutions across diverse healthcare project management scenarios. This is important to bridge the gap between theoretical/ideal principles and tangible results for patients and healthcare workers. Each interview (via guestions and conversations with experts in the related healthcare and non-healthcare fields) by an expert in a key role in the healthcare Al landscape offers a window into approaches, challenges, and successes in applying AI to healthcare projects. The series will cover expert views on AI in early detection, diagnosis, treatment, and prevention, but most importantly, AI for community and primary healthcare - a place where it's most needed to be impactful for the community and country. Needless to say, to be successful, implementing Al solutions for any healthcare setting requires meticulous project management methodologies. Al project management in healthcare,

¹ Editor's note: This series is by Dr. Deepa Bhide, a practicing pediatrician with additional experience in information technology and project management. Her 2023 series of articles introduced readers to a range of important issues related to programs, projects and PM in healthcare. In this new series, Dr. Bhide will interview experienced healthcare, IT and project professionals around the world to reflect on the impact of artificial intelligence on global healthcare. Learn more about Dr. Bhide in her author profile at the end of this article. To read previous works by Dr. Bhide, visit https://pmworldlibrary.net/authors/dr-deepa-bhide/

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currently in its nascent stages, will need to encompass various aspects such as technical skills, ways of working, business acumen, cultural and political considerations, ethical use, and more.

A few broad goals for this interview series are as follows.

- Understand the views of experts who play key roles in the healthcare Al landscape, for example, patients, healthcare providers, project managers, Al application vendors, medical devices and pharmaceuticals, regulatory agencies, and more.
- Explore the direct impact (or lack thereof) of AI solutions at a basic level of healthcare – for example, everyday clinic, hospital, community, or primary care setup.
- Identify enablers and impediments involved while implementing AI.
- Share insights on project management approaches in this emerging domain, including key challenges and best practices.

We encourage readers to engage with the series as stakeholders who will directly experience the transformation Al brings to healthcare.

Let's dive into the first interview of the series.

Patient – The beneficiary of Al technology

Excerpts of Interviews with the following four experienced IT and project management experts:

Sasi Kumar - Has over 45 years of experience in Information Technology and Project Management. Sasi Kumar is based in Canada.

Sunanda Gundavajhala PMP®, DASSM - Two decades of experience in project management, software development, business analysis, and process engineering. Sunanda leads the operations of DispatchTrack, India, a leading provider of last-mile delivery software solutions.

CA Chitra Soman, CCP, GRP - People Analytics and Compensation Manager at Volvo Financial Services, USA

Albert Selorm Agbemenu, MSc. PMP, LIMC - Albert is a Founder and Managing Director at Seag Focus with over twenty-five years of experience in the built environment. Albert has managed civil engineering and construction projects in Ghana, Liberia, and Equatorial Guinea.

Q 1: Do you know of any current active use of AI in your healthcare ecosystem?

Sasi Kumar: I have not directly interacted with AI-enabled tools, but I am sure it will come soon. However, I read about AI tools to help diagnose and monitor patients remotely. With an interest in how AI is shaping up in patient care, I heard about the amazing breakthroughs in genome-related fields using AI and robotics in surgery. I want to know more about how AI is used in these programs.

Q 2: What do you expect from AI technology as a patient?

Chitra: I would expect AI to potentially reduce diagnostic errors and improve the overall accuracy of my ailment. I want my care to be efficient, safe, and dependable. It will be good to involve patients throughout the AI process and be sensitive to their needs and concerns. Transparency and clear communication about AI from healthcare providers are necessary to develop and accept trust in the technology.

Sunanda: All should be able to amalgamate the expertise of multiple expert doctors from different departments to have a unified record of my interactions with doctors or hospitals over the years to better predict my disease/ailment. All should help minimize the cost of diagnosis or treatment and speed up recovery if possible.

I also expect AI to help me with medicines and diagnosis, suggest dietary changes and exercises, options around alternative medicine, and be a holistic well-being advisor, as AI has the data to give me these insights.

Sasi Kumar: As a patient, I expect AI technologies to give a better feel and understanding of my situation and a somewhat accurate prognosis.

Albert: I expect Al to help in the early detection of emergency conditions such as changes in heart rhythm and sugar fluctuations. Instead of waiting to go to the hospital, we can get the alerts using smart devices and alert the concerned family physician. Isn't that quick care?

Q 3: What benefits or disadvantages does AI technology have in patient care, especially in primary and rural care settings?

Chitra: I think primary care has other related facets, such as family, children, and circumstances. Al, for me, comes at more lateral or specialty care, further away from my primary issues. I also feel that in medicine or, for that matter, any patient care issues, it's not black and white. Al, given that it's a machine at the end of the day, would try to boil the ailment to black and white without considering the softer issues such as empathy, communication, and more that may need to be addressed.

Sunanda: Mobile applications and telemedicine can be enhanced with AI to bring better healthcare at a lower cost to primary health centers.

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Al can be a boon to arrest epidemics or seasonal diseases by predicting and spreading awareness. It can also help the primary centers stock up appropriately, reducing supply chain problems.

Sasi Kumar: Al tools are an excellent boon for remote diagnosis and monitoring of chronic diseases. Specific ailments like cancers can be predicted early using Al. Medical robotics is another area that assists medical professionals with precise surgical procedures in many ways. In a rural setting, instead of investing in a super multi-specialty, Al models can help diagnose diseases quickly.

Albert: The main disadvantage, in my opinion, is the access to the internet in most rural areas, especially in most rural areas in Africa where I live.

Q 4: Can you trust Al-generated recommendations? If yes, why? And if not, why?

Sasi Kumar: Yes. Human-generated or Al-generated, it does not matter. I can trust these recommendations as long as a human is behind them. Al tools are 'another pair of eyes' for the providers, thus enhancing the diagnosis.

Albert: Yes, I trust AI-generated recommendations because they give a wide range of options for decision-making and test cases that reduce the time required for the healthcare practitioner to research one's ailment. As a patient, I want to balance my excitement with my concerns about AI's ethical and transparent use.

Q 5: What are you most excited about from AI technology's use?

Chitra: Excited? Hmmm... maybe physicians will be able to access more information/cases/ permutations, which will ultimately help in my (patient) care. The AI will glean insights from zillions of records and send relevant options to the physicians aiding in the decision-support process. If you ask if I want my physician to be replaced by a machine, the answer is an emphatic NO!

Sunanda: Faster and more efficient decision-making/finding a root cause and treating a patient that could be a cumbersome and time-consuming process can now be simplified.

Ability to predict the diseases and suggest the appropriate treatment/course correction for a healthy life. While advancements in medicine have prolonged lifespans, the quality of life has not improved proportionately, which I think AI will help.

Al could analyze the patterns of the ailments and create recommendations for long-term changes in public health measures such as hygiene conditions, education, and awareness or simple procedures that could significantly affect children, women, and senior citizens.

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Sasi Kumar: Perhaps it is the reliability factor. I think that AI tools can improve efficiency by automating mundane tasks like reporting and communication. In association with professionals, giving more time for the provider to talk to the patient.

Q 6: What realistic timeline do you see for the technology to benefit at the primary level?

Sunanda: Realistically, going by the status of this nascent technology, history of healthcare adoption, and most importantly, regulations-governed use of AI, we may be looking at a phased integration of AI in primary healthcare over the next 5 to 10 years. Automating administrative tasks may be something we may see in the short term.

Albert: I believe this technology will make life easier for the patient and the healthcare provider. But it will be a while before we see the actual benefits.

Chitra: Integration of AI in mobile health (mHealth) will likely take off in a big way as these apps include fitness trackers, health monitoring apps, virtual assistants, etc, helping individuals manage their health and stay connected with healthcare providers.

Q 7: What, if any, do you see a role of governmental agencies in this context? Do you think corporates have any role to play?

Sunanda: I would like to see governments or large healthcare organizations in a pivotal role in establishing robust regulatory frameworks to ensure the ethical use of Al in actual practice, safeguarding patient autonomy, privacy, and data security through public awareness campaigns to educate patients about the benefits and risks of Al, empowering them to make informed choices. India can do better with stringent healthcare data privacy protection laws like HIPAA in the US.

Government, healthcare institutions, and technology developers should collaborate regardless of patient care delivery setup, urban or rural healthcare, to create a supportive and inclusive AI.

Sasi Kumar: Yes, both government and corporate entities have to play concerted roles in making healthcare (social or private) affordable, practical, and efficient.

Q 8: What other issues matter from a patient standpoint in primary care?

Sunanda: Rural health needs acceleration of patient care to match urban care. Al will be a good enabler. I see "Ayushman Bharat," a flagship scheme (https://nha.gov.in/PM-JAY) of the Government of India, achieving the vision of Universal Health Coverage (UHC).

"India is committed to responsible and ethical use of AI." - I was impressed to note these words from Prime Minister Shri Narendra Modi at the Global Partnership on Artificial Intelligence Summit 2023 in New Delhi, India.

Sasi Kumar: Ethical use, bias, and data privacy concerns are key amongst the other gamut of concerns related to the use of AI. I hope appropriate organizations will have a handle on these issues. From a project management background, I see the crucial role of project managers in coordinating all the elements of AI projects to benefit rural health and community patients.

I also see the emergence of global frameworks in support of the use of AI in various healthcare settings.

Albert: In my opinion, I expect healthcare professionals to be vested and knowledgeable in Al to be able to put in the correct information to generate the appropriate feedback.

Key Takeaways

Al is making waves in patient care. Patients are key stakeholders in guiding the development and implementation of Al tools as these solutions are developed for use as clinical decision support or diagnostic tools. While there seems to be an overall consensus that Al will make patient care better, patients are concerned about the safety and dependability of Al, threats to patient choice, data-source bias, and compromise in data security. Incorporating patients as critical stakeholders in any healthcare Al project is crucial to address their needs and concerns and ultimately improve patient-centered care.

- 1. Seek a seamless, comprehensive, personalized healthcare experience with quick diagnosis (catching something humans can miss), treatment options, and empowerment through informed health choices.
- 2. Express caution about too much automation and lack of human touch with technology.
- 3. Al technology as an aid in the care process has yet to gain patients' trust.
- 4. See the critical role of government, clinical leadership, regulatory organizations, and technology vendors in making AI a safe and scalable technology.
- 5. Feel Al should be seen as a tool to empower patients and healthcare professionals, NOT replace them!

Talking about healthcare professionals, the following interview will feature healthcare providers' views on the intrusion of AI in healthcare. Stay tuned...

Disclaimer: The views and opinions expressed in this interview series are those of the speakers and do not necessarily reflect the views of any entities or associated parties.

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Dr. Deepa Bhide, MBBS, DCH, PMP, has over 20 years of professional experience where she has blended medical practice and research with IT and Project Management. She juggles consulting, training, and operations and is proficient in clinical medicine, project management, and healthcare information technology. Starting her career as a medical practitioner, she has worked with varied organizations before her current stint as director and clinical expert for Inventurus Knowledge Solutions.

Deepa's growing interest and work in these areas, born from her day-to-day patient interactions, helped her view Project Management as a backbone of progressive healthcare. Her paper on "Patient Care - A Project Management Perspective" has received global recognition and acclaim. With a physician background as a solid foundation to leverage IT/PM skills and knowledge, Deepa has blended her broadbased experience and learnings to present a unified, holistic, and wholesome view of Project Management and Healthcare, a cross-domain confluence. Through various webinars, events, talks, and writings across platforms, Deepa has been an evangelist in championing global project management during the COVID-19 pandemic.

A Gold medalist from Osmania University for standing First in the MBBS course, she pursued her DCH in Pediatrics and Child health. Deepa has served various roles in local and global Project Management Institute (PMI) regions. She remains actively engaged with PMI and has been a participant and speaker for various national and global meetings and online events.

Deepa lives in Hyderabad, India, and loves traveling, singing, and experimenting with global cuisine. She can be contacted at deepa.bhide@gmail.com.