

## SPECIAL ISSUE INTRODUCTION

Sixteenth International Conference of Telemedicine  
Society of India: Experiences and Lessons Learnt for  
Evolving Transformation at a Global LevelAmar Gupta<sup>1\*</sup><sup>1</sup>Massachusetts Institute of Technology, 32 Vassar Street # 32-256, Cambridge, MA 02139, USA  
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**T**his issue of Telehealth and Medicine Today includes nine papers that are peer-reviewed and enhanced versions of a subset of papers presented at the 16th International Conference of Telemedicine Society of India, held in December 2020.

A common theme in several of these papers is that coronavirus disease 2019 (COVID-19) has acted as a catalyst for telemedicine and a dominant power to overcome forces that inhibit change (Machiavellian forces). Telemedicine has become an accepted mode of health care across diverse medical specialties in India, and this rapid transformation could not have been predicted by anybody at the beginning of 2020.

A major global or regional crisis serves as a strong catalyst to drive innovation, change, and improvement. As the end of 1999 approached, the end of the millennium required changing all specifications for the year from the abbreviated 2 digit mode on computers to the 4 digit mode. The Year 2000 Problem (Y2K) resulted in the globalization of financial and other major industries, and further led to a significant demand globally for information technology services and specialists from India. As healthcare and financial industries have many similarities in terms of costs, security, privacy, turnaround time, quality, and safety, I strongly believe that India will play a growing role in fostering a new global, telemedicine ecosystem.

Such a global telemedicine ecosystem will incorporate three prongs: people in proximity to the patient, such as primary care doctor, nurse, technician, or family member; domain experts in different medical specialties who are at a distance from the patient and located in a different suburb, city, district, state, country, or continent; and advanced computer and communication technologies. As technology is the pivotal glue in telemedicine practice, it is appropriate that the first paper 'Artificial Intelligence and Healthcare: Regulatory and Legal Concerns' by Krishnan Ganapathy focuses on the challenges associated with the

lag between the availability of new technology and the enactment of regulations to ensure quality of healthcare services and patient safety. While relevant developments in India and the USA have been cited by the author, this article highlights the urgent need for having a global approach, or alternatively a supranational approach, to minimize the probability of severe damage occurring from faulty AI products and services.

The second paper 'The AmbuPod Project: Learnings of a Government-certified, Telemedicine-enabled, Rural Healthcare Startup in India' by Lavanian Dorairaj and the third paper 'The Mobile Tele-Ophthalmology Unit in Rural and Underserved Areas of South India' by Lavanya Allimuthu, Ranjitha Kannan, Ramesh BabuSekar, Martin Manoj Mathiyazahan, Padmavathy Appasamy, Sangeetha Srinivasan, and Sheila John reveal examples of new rural efforts that can be gradually replicated in other states and nations using a bottom-up approach to foster transformation and improvement of healthcare services in terms of quality of healthcare services, the speed at which it is provided, and the number of patients who receive care.

The fourth paper 'Education and Training for Ethical Practice of Telemedicine for Registered Medical Practitioners in India' by Sunil Shroff, Bagmisikha Puhan, Lavanian Dorairaj, Mayank Agarwal, Manick Rajendran, Ravi Modali, Suchitra Mankar, P.S. Ramkumar, and Sandeep Patil focuses on the education of medical physicians in telemedicine using a course designed by a national organization, which reflects a top-down approach. In contrast, the fifth paper 'Identical telemedicine-enabled Clinics in Three Different Geographies: Our Learnings' by Suchitra Mankar and Nikhilesh Paradkar incorporates a middle-out approach that is based on an analysis of the outcomes in three identical telemedicine-enabled clinics in different geographies, with the objective of determining how to scale up these clinics in the future.

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The sixth paper 'Telepsychiatry During the COVID-Pandemic: Reflections from India' by Harihara Suchandra, Dinakaran Damodaran, Barikar C. Malathesh, Lakshmi Nirisha, Narayana Manjunatha, C. Naveen Kumar, Gopi Gajera, Sujai Ramachandraiah, Chethan Basavarajappa, Rajendra Gowda, and Suresh Bada Math and the seventh paper 'Tele-Mentoring and Monitoring of National Mental Health Program: A Bird's-eye View of Initiatives from India' by Gopi Gajera, Barikar C Malathesh, Lakshmi Nirisha, C. Naveen Kumar, Narayana Manjunatha, Harihara Suchandra, Sujai Ramachandraiah, Chethan Basavarajappa, Rajendra Gowda, and Suresh Bada Math focus on addressing mental health issues in a vast country.

The eighth paper 'Nursing Interns' Perceptions of Tele-nursing: Implications for Nursing Education' by Vijayalakshmi P, Kathyayani B.V., NiKhil Reddy S., Narayana Manjunatha, Naveen Kumar C., and Suresh BadaMath and the ninth paper 'Neurology and Telemedicine' by Partha S. Ray focus on changes in businesses and professional

practices, which are key to the success of broad transformations at regional, national, and global levels.

The multi-faceted changes that occurred during the year 2020 are characterized by haste, and the application of new concepts in larger geographic areas will require addressing of additional issues. With growing mobility of patients and medical professionals being based in different hospitals and places, based on the specialty such as the location of the Tele-ophthalmologist versus the location of the Tele-psychiatrist, the progress on the development and implementation of effective frameworks for sharing of patient data and healthcare interoperability will determine the pace of the broad deployment of the innovative ideas described in these nine papers from the conference.

I am grateful to the authors of these papers and the organizers of the event, especially to Krishnan Ganapathy for his proposal to disseminate the ideas via Telehealth and Medicine Today.