

Usage of Digital Technologies for the Healthy Aging in COVID-19

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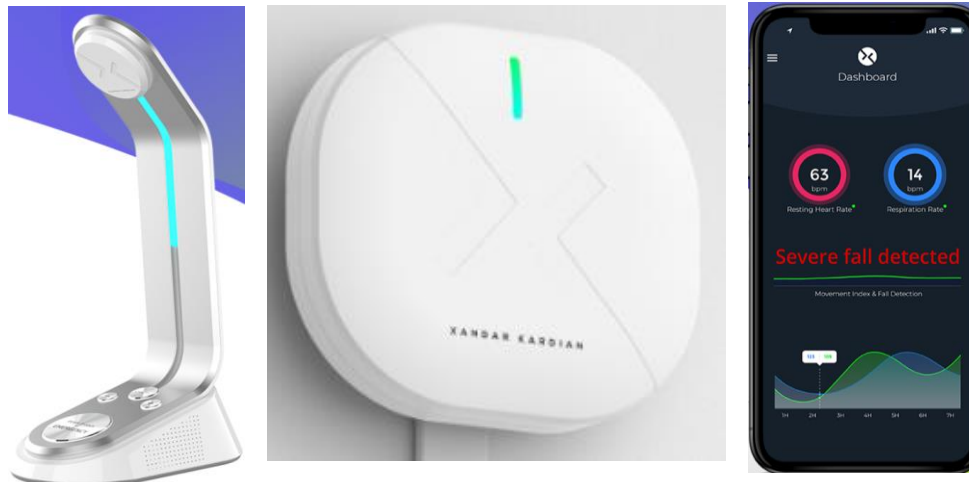
About ITIF

- The world's leading science and technology policy think tank.
- Supports policies driving global, innovation-based economic growth.
- Focuses on a host of issues at the intersection of technology innovation and public policy across several sectors:
 - Innovation and competitiveness
 - IT and data
 - Telecommunications
 - Trade and globalization
 - Clean energy, manufacturing, life sciences, and ag biotech



AI/ICTs Facilitate Remote Patient Monitoring and Care

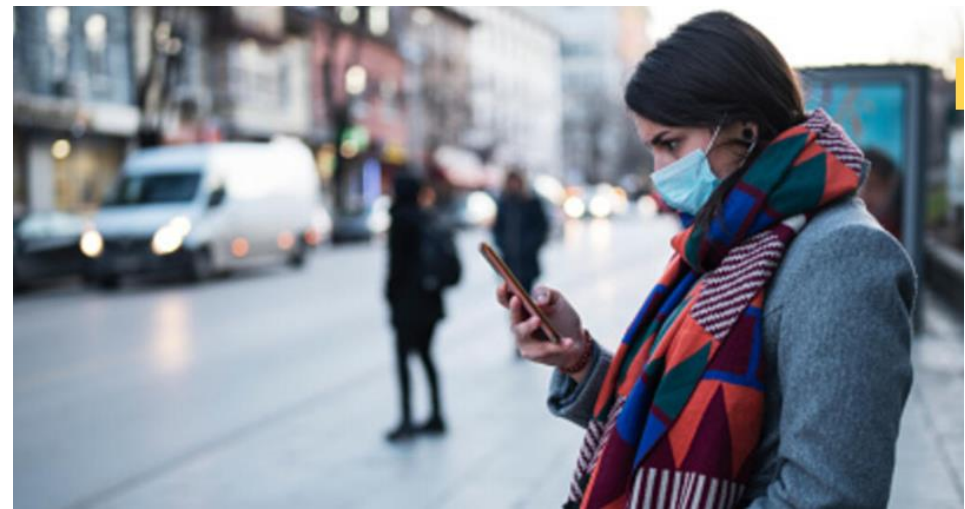
- TytoCare offers first all-in-one modular device and telehealth platform for on-demand, remote medical examinations.
- XanderKardian's micro-vibration detection system remotely monitors vital health signs, detects falls.



Source: TytoCare: <https://www.tytocare.com/about-us/>; XanderKardian, <https://xkcorp.com/covid19acute/>

AI/Digital Technologies' Role in Combatting COVID-19

- French doctors developed an open-source AI tool that helps predict likely severity of COVID-19 infections in specific patients.
- Canada's Facedrive Health developed TraceSCAN, using AI algorithms in a smart phone contact tracing app that can warn of COVID-19 exposure.



AI Facilitates Digital Inclusion

- Digital technologies like VR enable multiple generations to meet online.
- Microsoft turning visual data into audio feedback, enabling blind people to “listen” to photos.
- Amazon Alexa uses AI to interpret sign language and respond visually.

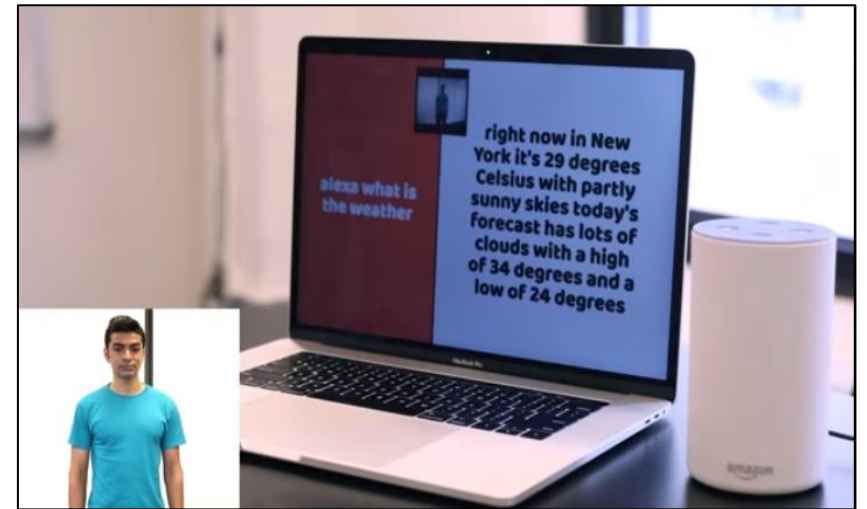
Alcove Virtual Reality



Microsoft’s “Project Tokyo”



Alexa Sign Language Interpretation



AI Enables Multicancer Early Detection (MCED)

- MCEDs like GRAIL and Thrive can detect as many as 50 different types of cancers from a single blood draw.
- GRAIL's test identifies cancerous tissue with 93% accuracy and a false positive rate of less than 1%.
- Uses AI to detect circulating tumor DNA.
- Can help countries recover from COVID-19-induced cancer screening shortfalls.



Survival within 5 years when cancer is diagnosed late (after cancer has metastasized) is **21%**, but when diagnosed earlier (when cancer is still localized), survival is **89%**.

Earlier detection may result in a 24% reduction in 5-year cancer deaths.

Source: ITIF, "Seizing the Transformative Opportunity of Multicancer Early Detection," (Forthcoming, Spring 2020); GRAIL.com; Thrivedetect.com

Why ICT Innovation Should Be an SDG Priority

- Digital transformation enables more remote activities, making physical distancing more likely and more productive.
- ICTs enable remote provision of health, education, government services, also connecting individuals to global markets and enabling remote work.
- 90% of the benefits of ICTs for developing nations stem from usage.



Source: ITIF, “[Digital Policy for Physical Distancing: 28 Stimulus Policy Proposals That Will Pay Long-Term Dividends](#)”

Policy Recommendations

- Join and expand the Information Technology Agreement (ITA).
- Facilitate interoperable health data flows among nations.
- Ensure citizens have access to the Internet; prioritize ICT infrastructure.
- Recognize that digital literacy is a critical aspect of technology uptake.
- Adopt innovative regulatory approach to approving medical devices using novel technologies like AI.
- Engage with the WHO's Digital and Assistive Technologies for Aging (DATA) initiative.

Join the Global Trade and Innovation Policy Alliance



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Thank You

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