

NC STATE UNIVERSITY

Humanities and Social Sciences

AI-mediated smart crowdsourcing during COVID-19: Extra-institutional risk communication in Beijing

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Agenda



Introduction

Crowdsourcing and smart crowdsourcing



The Study

Beijing's multi-sector e-health campaign



Discussion

Smart crowdsourcing, extra-institutional risk communication, and social justice

What is crowdsourcing?

Crowdsourcing platforms enable job requesters to post Human Intelligence Tasks (HITs) – surveys, manual tagging, etc.

Amazon Mechanical Turk

Access a global, on-demand, 24x7 workforce

Get started with Amazon Mechanical Turk

Benefits

Optimize efficiency MTurk is well-suited to take on simple and repetitive tasks in your workflows which need to be handled manually. Using MTurk to outsource microtasks ensures that work gets done quickly, while freeing up time and resources for the company – so internal staff can focus on higher value activities.	Increase flexibility Scaling up and down a workforce isn't the easiest undertaking. With access to a global, on-demand, 24x7 workforce, MTurk enables businesses and organizations to get work done easily and quickly when they need it – without the difficulty associated with dynamically scaling your in-house workforce.	Reduce cost MTurk offers a way to effectively manage labor and overhead costs associated with hiring and managing a temporary workforce. By leveraging the skills of distributed Workers on a pay-per-task model, you can significantly lower costs while achieving results that might not have been possible with just a dedicated team.
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How it works

MTurk offers developers access to a diverse, on-demand workforce through a flexible user interface or direct integration with a simple API. Organizations can harness the power of crowdsourcing via MTurk for a range of use cases, such as microwork, human insights, and machine learning development.

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graph LR; Requesters[Requesters have tasks they need to be completed] --> Marketplace[MTurk Marketplace]; Marketplace --> Workers[Workers want to earn money and work on interesting tasks];
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Why crowdsourcing in pandemic management?

Participatory,
meritocratic, &
bottom-up processes



Incentive
mechanisms

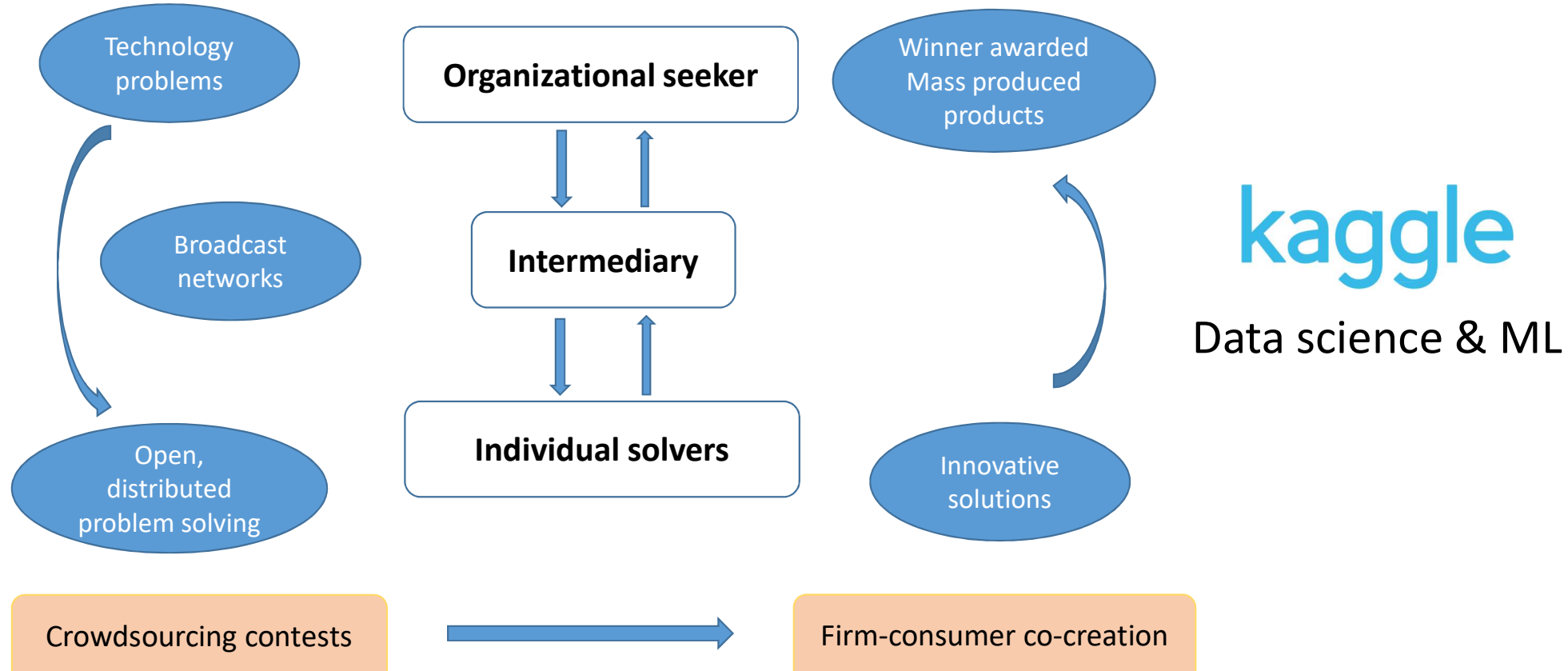
Top-down
management
needs



Local, regional,
or global
networked
prosumption

Brabham, 2013; Guth & Brabham, 2017

Players and processes of crowdsourcing



Schafer, Antons, Luttgens, Piller, & Salge, 2017; Ding, 2020

What is smart crowdsourcing?

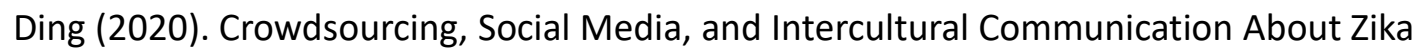
Crowdsourcing
- expert with know-how



Curation



Outcomes
- Implementable



Beijing's multi-sector e-health campaign



> 4600 volunteers – Feb 5
>14,000 responses - April 13

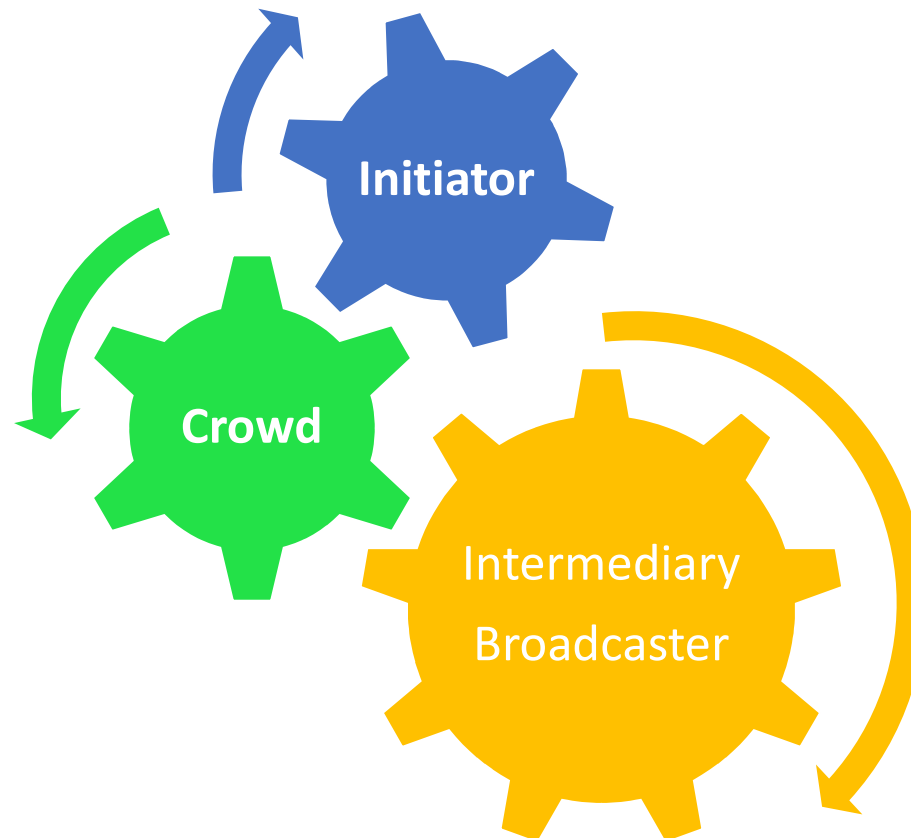
Beijing e-health

January 26 initiated,
February 1 released with
1000 volunteers

Wuhan lockdown

January 23-April 8, 2020

**Key Player 1
Professional
Organization**



**Key Player 2:
Intelligent
Crowd - Experts**

**Key Player 3:
Technology
Service Provider**



北京市新冠肺炎线上医生咨询平台
北京医学会主办 公益 便捷 专业

Beijing Online Medical Consulting Platform
for Coronavirus

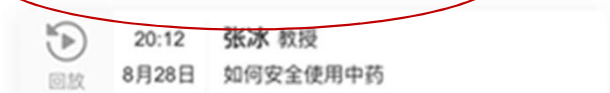
全力做好新型冠状病毒
肺炎疫情防控工作



1

专家直播 Expert live stream

更多



2

专家视频 Expert videos

更多



防疫知识学习 COVID-19 Knowledge



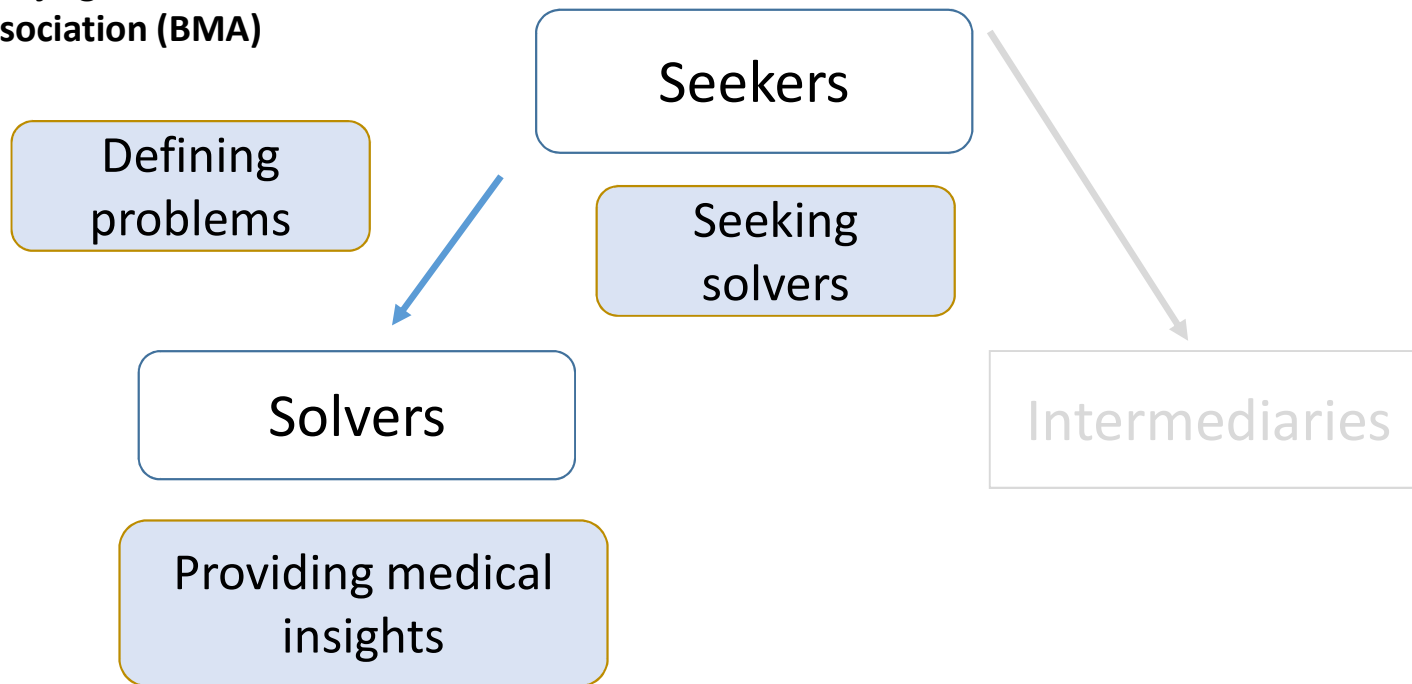
3



Aggregate authoritative content in one portal



Beijing Medical
Association (BMA)



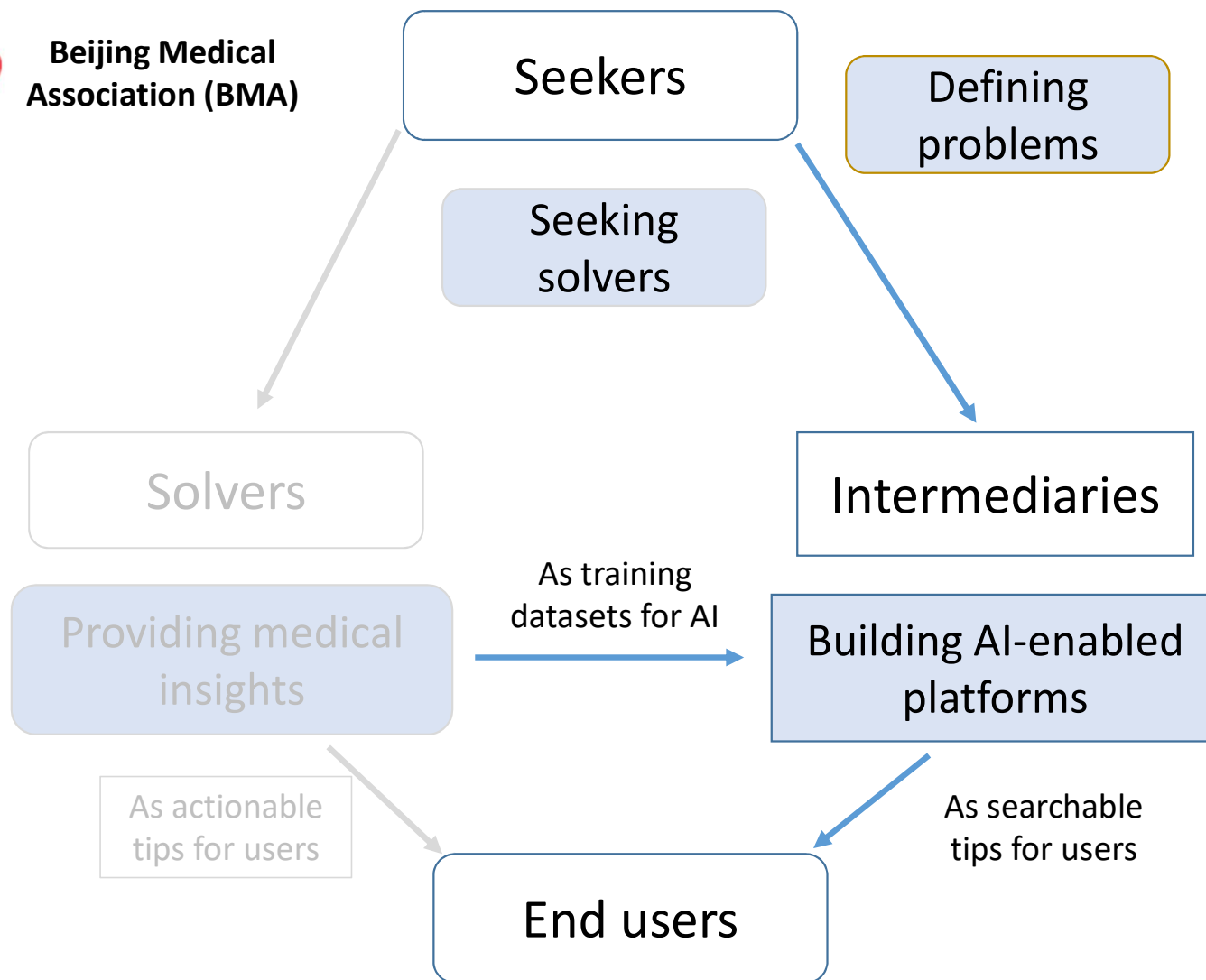
Reduced
hospital visits

As actionable
tips for users

Distributed knowledge work



Beijing Medical
Association (BMA)





Beijing Medical
Association (BMA)

Seekers

Defining
problems

Seeking
solvers

BJOMCPC platform

MCWs as Solvers

**Techno-
Intermediaries**

Providing medical
insights

Building AI-enabled
platforms

As actionable
tips for users

As searchable
tips for users

End users

Texts

As training
datasets for AI

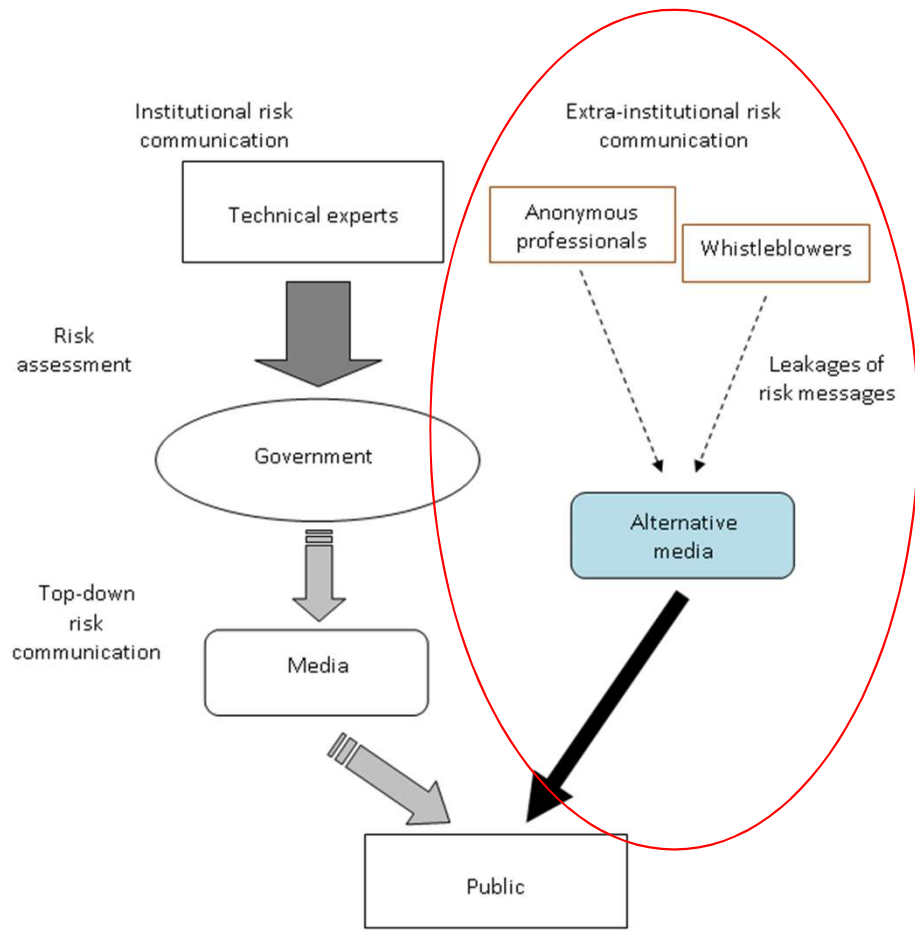
Videos

Live
sessions

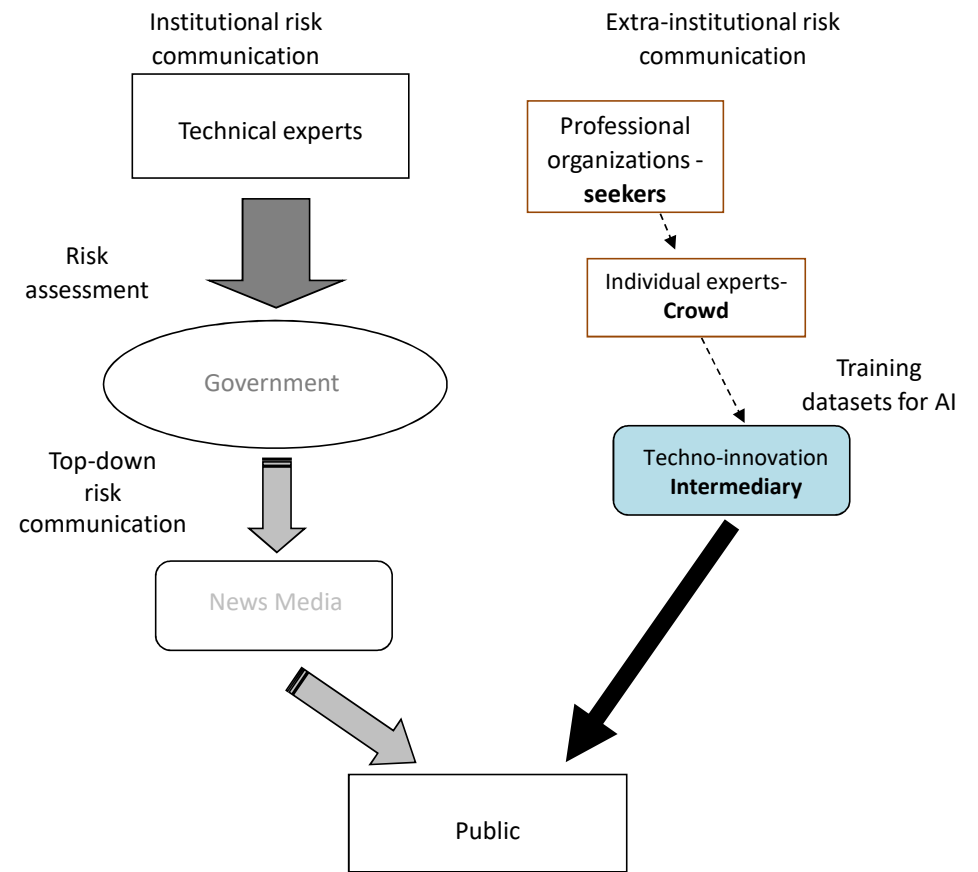


Telemedicine

Smart crowdsourcing and risk communication

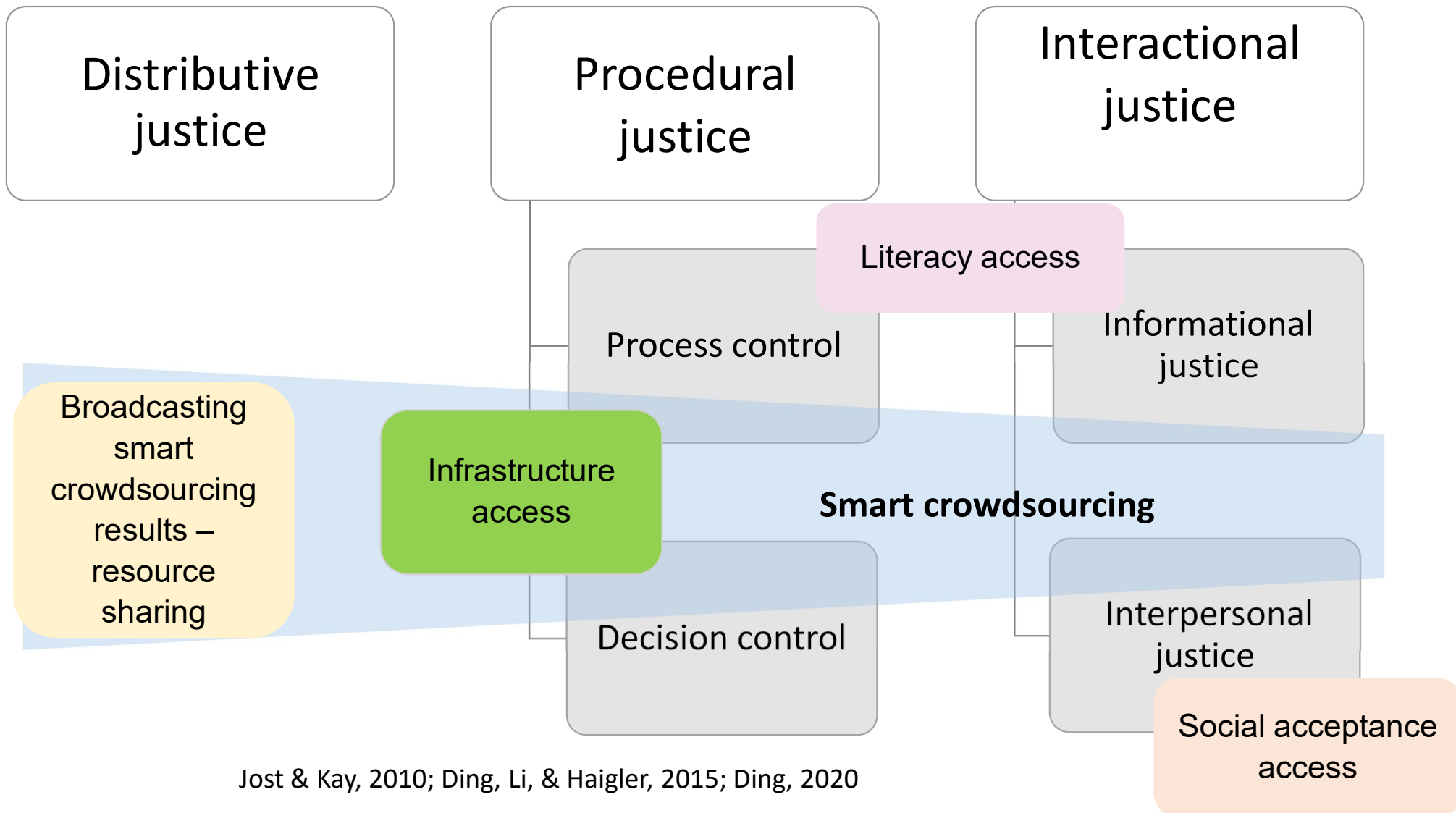


Ding (2014). SARS risk communication

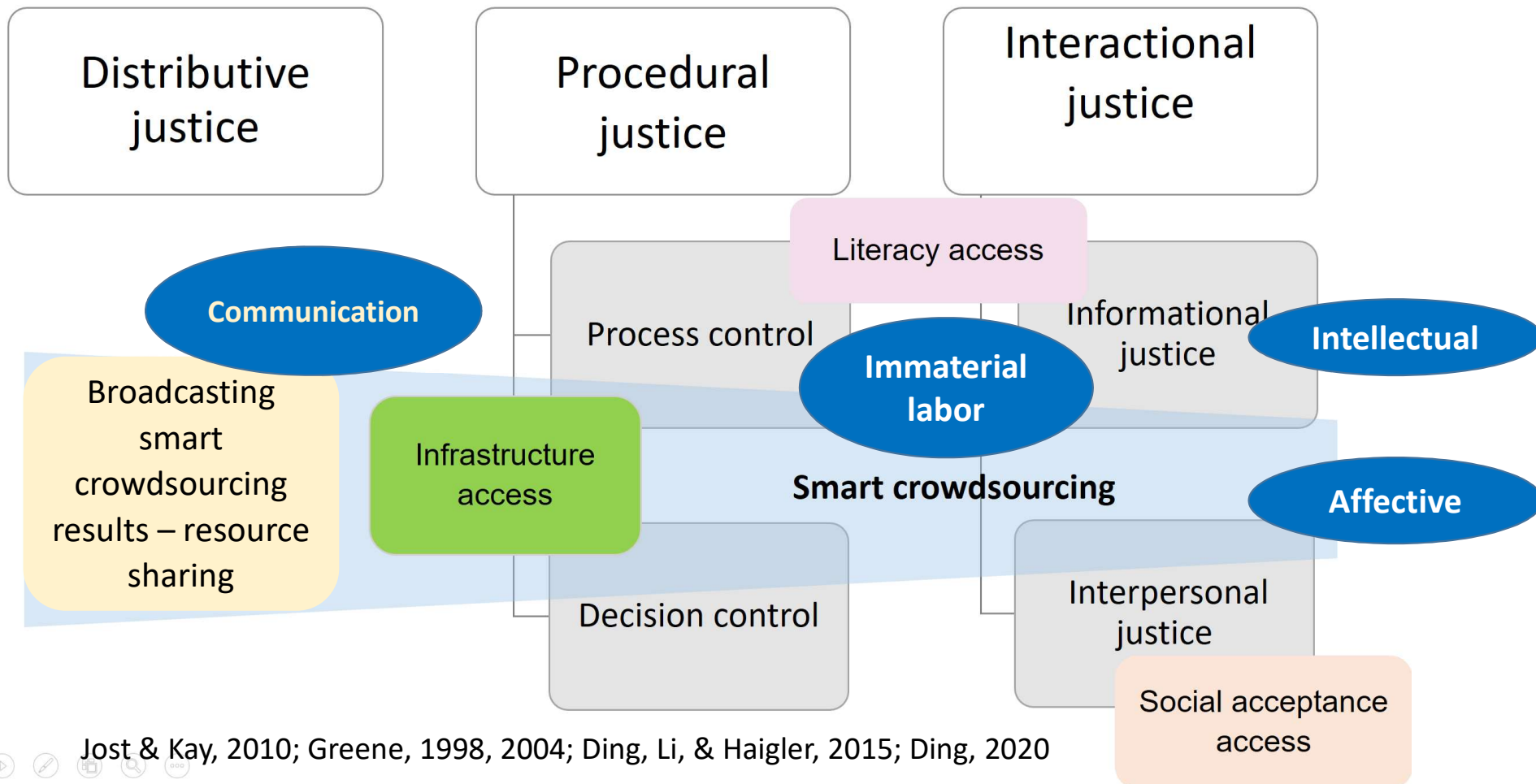


Ding (2021). COVID-19 risk communication

Smart crowdsourcing and social justice



Augment distributed knowledge work/immaterial labor



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