

# Open Working Group on Emerging Technology July 23, 2018 Meeting Minutes

# 1. Call to Order

Erica Maybaum, Legislative Aide and Linda Gerull, Chief Information Officer, called the meeting to order at 5:05pm.

2. Introductions

**Guests Present:** 

AJ, McBride, Tech Sf	DC Spensley, Open Channel	Tim Lucas, EARN
Alice Armitage, US Hastings	Fran Taylor, Si Si Puede	Alex Mitra
Ashley Cohen, Zipcar	John Urgo, CTA	Alice Rogers, SB/R/MBNA
Jay Owens, Homebridge	Kellyn Blossom, Thumtack	Bob Planthold
Julia Friedlander, MTA	Lucy Greco, UC Berkeley	Crustal Booth, SF Senior Center
Rebecca Siegel, UC Hastings	Luis Cuadra, Marble	Debra Gore-Mann, SF COnservation
Saayelo Mukherji, Elementum	Madeira McQueen, St. Anthony's	Care
Salomon Green-Eames, SFMTA	Mariko Davidson, Ford Gobilee	Erica Lin, Healthright 360
Brad Taylor SPPUC	Michael Makstman, DT	Forest Barnes, SFMTA
Brent Turner, CA Assoc. of Voting	Nicole Bohn, MYD	James R. Anderson
Officials	Randall Scott, Union Square BID	Josh Fried, Waze
Angelia Di Martino, Cany Senior	Richard Scott, Goodwill	Joy Bonaguro
Center	Rosa Revuelta, Goodwill	Lulay Aczel TSG
Cathy Spensley, Felton	Ryan Greene-Roesel, BART	Andy Aczel TSG
Darryl Yip, SFMTA	Scott Mauvais, Microsoft	Reymon LaChaux, Success Center SF
Darton Ito, MTA	Serena Keith	Robert Cantioni
David Young, Omni		

Committee on Information Technology Staff: Matthias Jaime Brit Bieber Mayor's Office of Civic Innovation Daniel Palmer Ximena Sarango SF Public Works Brent Cohen Stacey Lee Ana Diaz SF Municipal Transportation Agency Danielle Harris County Transportation Authority Warren Logan OnStrategy Erica Olsen Lorna Shepard

3. Overview of Working Group <u>Download: July 23 Emerging Tech Presentation.pdf</u>

Attendees' responses to the text poll question, "In 1 word, what technology topic(s) do you want this group to discuss?"



4. Participant Input

Through a series of facilitated exercises completed in small groups of 7 to 10 people, attendees identified:

a) Benefits of emerging technology

	JULY 23 OPEN WORKING GROUP BENEFITS OF TECHNOLOGY					
Group 1	Group 2	Group 3	Group 4	Group 5		

<ul> <li>Global perspective</li> <li>Social connection</li> <li>Speed of communication (Slack)</li> <li>Ease of access to info (email, search engines, delivery bots)</li> <li>On demand logistics (insta cart, postmates)</li> <li>Convenience</li> <li>Responsiveness</li> <li>Security and privacy (health and personal information)</li> <li>Personalization</li> <li>Safety</li> <li>Mental stimulation</li> <li>Reduced costs / increased fiscal responsibility</li> <li>Instant gratification/on demand</li> <li>Transparency</li> <li>Improved QoL and public health</li> <li>Interoperability</li> <li>Adaptable</li> <li>Scalability</li> </ul>	<ul> <li>Improved quality of life</li> <li>Security</li> <li>Mobility</li> <li>Efficiency</li> <li>Safety</li> <li>Public private partnerships value capture</li> <li>Quality of democracy</li> <li>Helping people v. enriching people v. enriching people</li> <li>Personalization</li> <li>Foster positive change</li> <li>Foster v. force</li> <li>Seamless integration for everyone</li> <li>"only potential"</li> <li>Travel</li> <li>Jobs</li> <li>Accessibility</li> <li>Info dissemination</li> <li>Cost efficiency</li> <li>Will tech change for us v. we change for tech?</li> <li>Trust</li> <li>Social impact</li> <li>Transparency</li> <li>Awareness</li> <li>Live full, rich, active lives</li> </ul>	<ul> <li>Sense of belonging</li> <li>Better/improved QoL</li> <li>Community development</li> <li>Wealth-building</li> <li>Accessibility</li> <li>Livability</li> <li>Healthier lives</li> <li>More fun!</li> <li>Reducing isolation</li> <li>Sharing knowledge</li> <li>Civic Engagement</li> <li>More leisure time</li> <li>Making things easier</li> <li>Stress reduction</li> <li>Peace of mind</li> <li>Reduced barriers of entry to the workforceàmore job opps</li> <li>Increase of knowledge and understanding</li> <li>Longer life span</li> <li>Improved health outcomes</li> <li>Broader horizons</li> <li>Increased possibilities</li> <li>Increased safety</li> <li>Easier access to education</li> <li>Efficiency/sustainab ility (env)</li> <li>Access to products and services you need</li> <li>Networks and friends</li> <li>New experiences</li> <li>Choice</li> <li>Living through disasters/crisis response/survivabili ty</li> <li>Micro climate elimination/fog reduction</li> </ul>	<ul> <li>Accessibility/acce ss non previously existent</li> <li>Efficiency: resources, mobility, speed, process</li> <li>Increase safety</li> <li>Personalization</li> <li>Economic toolàpositive employment outcomes</li> <li>Better anticipation of upcoming issues</li> <li>Laborwork changes</li> <li>Happiness</li> <li>Better crisis management</li> <li>Socialization</li> <li>Better communication</li> <li>Inclusion</li> <li>Data / information resources</li> <li>Transparency</li> <li>Opportunities</li> <li>Research to past</li> <li>Comfort and easiness</li> <li>Better access to healthcare</li> <li>Teaching &amp; learning</li> <li>Tool to new access for disabilities</li> <li>Augmentation</li> </ul>	<ul> <li>Efficiency</li> <li>Accessibility</li> <li>Improved QoL</li> <li>Better health</li> <li>Growth</li> <li>Less pollution (air, water, noise)</li> <li>Improved connections</li> <li>Close the opportunity gap</li> <li>Empowerment</li> <li>Safety</li> <li>Increase QoL</li> <li>Entrepreneurship</li> <li>Information/dept h</li> <li>Data synthesis</li> <li>Opportunities</li> <li>Cost reduction</li> <li>Increased housing options</li> <li>Environment</li> <li>Greening of the city</li> <li>Workability</li> <li>Affordability</li> <li>ransfer of skills (all skils-intellectual)</li> <li>Physical/emotion al</li> <li>Exposure to new ideas</li> <li>Engagement</li> <li>Arts &amp; Entertainment</li> <li>Creativity</li> <li>Accountability</li> <li>Transparency</li> <li>Resilience, support</li> <li>Disaster response, coordination, alerts</li> </ul>
Group 6	Group 7	Group 8	Group 9	Group 10
<ul> <li>Equity</li> <li>Accessibility</li> <li>Data</li> </ul>	<ul> <li>Responsiveness/real time solutions</li> <li>Greater transparencyàincreas</li> </ul>	<ul> <li>Increased connection between comm &amp; gov.</li> </ul>	<ul> <li>Facilitates corporations</li> <li>Solves transportation</li> </ul>	<ul> <li>Public health</li> <li>Well-being/happi ness</li> <li>Opportunity to</li> </ul>

<ul> <li>Equity in education</li> <li>Improved UX <ul> <li>human centered</li> </ul> </li> <li>Revenue for the City</li> <li>Common good</li> <li>nfrastructure</li> <li>Potential impact on public good</li> <li>Insights from public data</li> </ul>	<ul> <li>Opportunity to be more inclusiveàopportunity for more input: more voice, e.g., translation</li> <li>Increased opportunity, e.g., jobs, access to info, services</li> <li>Opportunity to remove geographic boundaries (disabled community)</li> <li>Make life easier, solve common issues</li> <li>Opportunity for new learning, greater collaboration</li> <li>Improve service and faster more responsiveàmore data points</li> <li>More efficient with city resources</li> <li>Greater safety and security: persona (body); Data security</li> <li>Economic benefitsàopportunity to continue to leadàphilanthropic driversàsupport philanthropic</li> <li>Opportunities in healthcare and</li> </ul>	<ul> <li>Safer city</li> <li>More dense city</li> <li>More convenience or access</li> <li>Prepare us for imminent/pendin g changes like climate change</li> <li>Ability to track displacement</li> <li>Prevent displacement</li> <li>New jobs</li> <li>Region's economic vitality</li> <li>More data informed equity</li> <li>Public engagement</li> <li>Multi-modal connectivity – centralized, convenient</li> <li>Cleaner streets</li> <li>Reduce barriers to public benefits</li> <li>Reduce language barriers</li> <li>Bring the future to our community – more people will imagine what's possible and what they want to be better</li> </ul>	<ul> <li>Mobility for people who can't drive: schools, jobs, health, see friends, childcare</li> <li>Increased affordability for legal problems</li> <li>"right to the city" &amp; access to</li> <li>Access to info/data</li> <li>Reallocate land (e.g., for housing)</li> <li>Environmental sustainability</li> <li>Save time / \$</li> <li>Individuals can control personal info</li> </ul>
	<ul> <li>leadàphilanthropic driversàsupport philanthropic</li> <li>Opportunities in</li> </ul>	– more people will imagine what's possible and what they	
	<ul> <li>Pipeline to jobs and job trainingàgreater access beyond pedigreeàskill balanced economy</li> </ul>		

b) Critical principles or considerations of technology and the ideal outcomes if the City gets the balance of emerging technology and critical principles right.

JULY	23 OPE	N WORKI	NG GROUP	CRUCIAL	PRINCIPLE	S / CONSID	ERATIONS			
18 PRINCIPLES / CONSIDERATIONS PRESENTED	Grp 1	Grp 2	Grp 3	Grp 4	Grp 5	Grp 6	Grp 7	Grp 8	Grp 9	Grp 10
Safety and security										
Net common good						х		х	х	
Impact on congestion										
Equity	х			х	х		х	х	х	

Safety, needs, and convenience of humans	х							х		
Support rather than reduce the labor force										
Efficient and fair process	х									
Needs of the most vulnerable members							х	х		
Include labeling										
Manage risk										
Public safety									х	
Protect private information										
Accessibility				х				х	х	
Costs on the use of public infrastructure										
Public-Private partnerships								х		
Public value								х		
Regulation should be nimble and responsive		х				х				
Ethics		х					х			
JULY 2	3 PRINC	IPLES / CC	NSIDERA	TIONS CRI	ATED BY	SESSION P	ARTICIPAN	TS		
Don't privatize public assets – Right to the City									х	
Human good first									х	
Improved quality and satisfaction w/ govn't resources							х			
Protect all SF from unintended consequences while pursuing new tools to address old and new problems							Х			
Encourage innovation's adherence to SF Principles							х			
Improve social and economic and physical welfare of all residents							х			
Enhance democratic decision making	х									

Inclusivity	х						
Fun		х					
Quality of life		х					
Nimble, small scale incubation				х			
Keeping pace with the curve			х				
Environmental Impacts			х				
Accountability					х		
Transparency						х	
Public-Public Partnerships						х	

c) Ideal Outcomes of balancing emerging technology with critical principles or considerations:

# JULY 23 OUTCOME STATEMENTS

#### Group 1

If we get the balance right of the presence of emerging technologies in our city, and safety needs and convenience of humans, efficient and fair process and equity the ideal outcome will be tech is easily accessed and used by all now and near term, better distribution of tech benefits across all citizens (decreased digital divide), maintained leadership as center of innovation with a city leadership making informed and balanced decisions on technology, enhanced city living, improved quality of life for all.

# Group 2

If we get the balance right of the presence of emerging technologies in our city and **inclusivity**, <u>ethics of leadership and</u> government and responsive and nimble regulations, the ideal outcome will be a review process with community, includes public engagement, rwearding company for succeeding their contribution (stop asking to test for for free), offering opportunity to people who have been displaced, paying fair share and giving back to the city, mobility that is safe, affordable, timely travels for all, partner city and tech for state of the art municipal services, community benefits so that any tech that city adopts or fosters have a positive impact on the city.

#### Group 3

If we get the balance right of the presence of emerging technologies in our city, and **the net common good**, especially equity, safety and out city environments, the ideal outcome will be a more livable, loveable city for everyone.

# Group 4

If we get the balance right of the presence of emerging technologies in our city, and **keep pace with the curve, equity and** accessibility and minimize environmental impacts,, the ideal outcome will be an informed, connected, and supported community that understands and benefits from the opportunity that technology brings towards a better quality of life.

Group 5

If we get the balance right of the presence of emerging technologies in our city, and **promote nimble, small scale** incubation and equity from inception to beyond, the ideal outcome will is more people participate and benefit, growth is deliberate, life, dignity and well-being are promoted.

# Group 6

If we get the balance right of the presence of emerging technologies in our city, and <u>net common good, accountability and</u> <u>regulations that are nimbler and responsive</u> the ideal outcome will <u>foster innovation and practice policy making to create</u> <u>an equitable distribution of benefits and minimize cost to society and individuals.</u>

# Group 7

If we get the balance right of the presence of emerging technologies in our city, and <u>ethics, equity and the needs of most</u> <u>vulnerable users</u>, the ideal outcome will <u>improved social</u>, <u>economic</u>, <u>physical welfare of all while protecting all from</u> <u>unintended consequences</u>.

#### Group 8

<remote group did not complete an outcomes statement>

# Group 9

If we get the balance right of the presence of emerging technologies in our city, and **safety universal accessibility, and net common good** <u>the ideal outcome will be **less social and economic inequality...More happier people!**</u>

#### Group 10

the ideal outcome is a city that is accessible, transparent and innovative.

d) Potential issues or hurdles to achieving the ideal outcomes. The numbers next to these items reflect the 'votes' each issue or problem received from small group members for being the most critical potential issues.

	JULY 23 OPEN WOR	KING GROUP POTENTIAL	ISSUES OR HURDLES	
Group 1	Group 2	Group 3	Group 4	Group 5
<ul> <li>Special voting interests [1]</li> <li>Impact on sustainability [1]</li> <li>Corruption [3]</li> <li>Unintended consequences [4] (bikes in ocean)</li> <li>Overly bureaucratic and complex or not bureaucratic enough [2]</li> <li>Technological hubris [2]</li> </ul>	<ul> <li>Speed of govn't.</li> <li>Silosàtech-govn't community-other</li> <li>Apathy [1]</li> <li>Hypocrisy [1]</li> <li>Disenfranchiseme nt [1]</li> <li>Lack of communications</li> <li>Collaboration between agencies [2]</li> <li>Not setup to get tech companies to help w/ our</li> </ul>	<ul> <li>Excessive regulation [2]</li> <li>Bureaucracy [1]</li> <li>Difficult trade-offs [3]</li> <li>Slow processes [4]</li> <li>Lobbying [1]</li> <li>Political process [1]</li> <li>Private interests</li> <li>Legal barriers / jurisdictions</li> <li>SF could become an afterthought [2]</li> </ul>	<ul> <li>Funding [2]</li> <li>Access to tech</li> <li>Training/putreach [2]</li> <li>Educational campaign</li> <li>Innovative pilots [2]</li> <li>Emerging tech not representing the broader community but more specific groups of people.</li> <li>Lack of inclusion</li> </ul>	<ul> <li>Grow too slow [1]</li> <li>Profitability [1]</li> <li>Lack of incentives [2]</li> <li>Innovation discouraged [1]</li> <li>Lack of data</li> <li>Lack of roadmap for success [1]</li> <li>Funding [1]</li> <li>Accountability [2]</li> <li>Enforcement [2]</li> <li>Communication [1]</li> </ul>

<ul> <li>Scope – lack of prioritization [1]</li> <li>Varying goals /competing interests [2]</li> <li>Outreach</li> <li>Lack of universal useability</li> <li>Lack of leadership [1]</li> <li>Lack of representation</li> <li>\$/funding [2]</li> <li>Legacy infrastructure [1]</li> <li>Comm with biz</li> <li>Lack of data informed decision-making [3]</li> </ul>	problems [2] Govn't. reorganization is difficult "Govn't needs to clean its house first" They think they know best (oth tech and companies) [1] Accessibility Inclusive input is hard!	• Uncertainty	<ul> <li>and diversity [2]</li> <li>Not having subject matter experts at the table [3]</li> <li>Procurement process [1]</li> <li>Drawing a line on how far the engage community in workforce training, but not jobs</li> </ul>	
Group 6 Companies won't play [3] Fear of tech Bureaucracy [5] Status quo Privacy /IP Profitability Conflicting regulations [1] Lack of transparency Unaligned interests with public good [3] NIMBY	<ul> <li>Group 7</li> <li>Corporate control [2]</li> <li>Invasion of privacy [1]</li> <li>Cyber securityàmanipula tion of data [1]</li> <li>Conflicting needsàconflicting solutions</li> <li>Over surveillance</li> <li>Ageism / racism / classism [1]</li> <li>Capacity of civil servantsàjob skills, budgets, resources, tools [1]</li> <li>Govn't trust</li> <li>Efficiency vs. options that meet all àunbalanced [1]</li> <li>Lack of data transparency</li> <li>Willingness to commit to long-term benefits</li> <li>Risk management [1]</li> <li>Entrenched interests/politics [2]</li> </ul>	<ul> <li>Group 8</li> <li>Mistrust among disadvantaged</li> <li>Inability to change</li> <li>Group think</li> <li>Picking winners and losers</li> <li>Not letting tech mature before picking a vendor</li> <li>Lack of process for companies to get in to this</li> <li>No clear public process for putting 'stuff' into public spaces</li> <li>No penalties for non-compliance</li> <li>Unscrupulous optimism</li> <li>Vendors have little motivation to help gov.</li> <li>Tech redundancy and duplication</li> <li>Do we need so many gizmos?</li> <li>Scope and scale of netfacing development is underestimated</li> <li>Misunderstanding that public sector does not have assets to control the process</li> <li>Urgency is not an auto benefit to the</li> </ul>	<ul> <li>Group 9</li> <li>Corporate interests has too much influence</li> <li>Impossible to get everyone's input</li> <li>No measurable outcome [3]</li> <li>No defined end-game or destination/vision</li> <li>Politics [1]</li> <li>Being reactive, not proactive [3]</li> <li>Not getting permission</li> <li>No accountability [2]</li> <li>No penalties</li> <li>No enforcement</li> </ul>	<ul> <li>Group 10</li> <li>Make sure to have qualitative info</li> <li>State and federal preemption [3]</li> <li>Pay to play / \$ drives policy [1]</li> <li>Tech is only for those who can afford it [3]</li> <li>Bureaucracy can stifle innovation</li> <li>Assumption purely tech solves for everything [4]</li> <li>Tech that doesn't solve problems</li> <li>Public distrustàpublic doesn't trust companies, process, etc.</li> </ul>

		•	technologist Most tech is expensive Not having appropriate regulations/frame work in place		
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# 5. Next Steps

- August 17 Launch subgroups
- September 17 Develop recommendations
- November 5 Final recommendations
- Other Methods for participation and input:
  - Pre- and post-session surveys
  - Written comment
  - Newsletters (sign up on website)
  - Website: EmergingTechsfgov.org
  - Email: <u>emerging.tech@sfgov.org</u>
  - Phone: 415-554-4577

# Appendix 1

# JULY 23 PRE-MEETING SURVEY

In your opinion, what is emerging technology?

New technologies that we need to learn to stay competitive with our customers

New ideas, programs, apps

Technology that is still in the beta and early adopter stage, i.e. that has not yet had mainstream adoption. Or is going through a major disruption in that the technology is in the process of a major reboot, or perhaps a new use altogether.

new forms of technology that is newly developed or being developed.

It is new technology that evolves the way that we do things.

Emerging technology powers physical or digital responses/solutions to problems/issues in a new and unfamiliar way that may, by design or accident, create conflicts with existing systems.

Emerging technology is technology that is new to the market and potentially still in prototyping or testing that has the potential and ability to change how markets are managed, operated, or viewed

Something in early adoption phase where the tech is mostly proven but the specific business model or use case needs to be worked out.

Technology that is not quite ready for release but needs to be planned for.

New business offerings in the city based on technology, typically using Apps

It's web 3.0, beyond social media, now people can use the internet for almost anything and everything, for better or for worse.

Technology that is still in the "early adopter" stage

I define emerging technology as any new use or tool that leverages technology.

A service or product not previously available to the public but derived from new devices and software.

Technology that is just beginning to get traction with the general public.

weird question. emerging. technology.

An app for everything

I define emerging technologies as ones that have a social impact.

Something that did not exist before.

new/innovative, progressive developments in tech

To me, I think of emerging technology as a technological advancement. I believe emerging technology is happening every single day -- constantly updating and changing, or new tech that is being created, ideally making it more user friendly and easy to use and navigate.

New ways of using computers.

Technology that has the potential to dramatically change lives for the better

I talked with the steering committee directly about this, but briefly, as any technology hat is not being used to its full potential

Emerging technology is any new thing that allows our lives to be better in some way—whether that be through accessing entertainment or services, communicating, or something else.

Any technology that is new or inproved

Unsure of its potential global effect.

What is an example of emerging technology?

Big data, artificial intelligence, block chain

Sensing devices to note if someone has fallen

Autonomous Vehicles and AI solutions that make the law more accessible and more affordable

the use of robots

In retail there is a move to use technology that changes customers experience, for example automatically paying for items when you walk out (amazon)

Shared mobility devices enabled remotely

Phone applications for connecting modes of transportation with passengers, passenger routes, and payment, for example these are most commonly used with taxi and car or other transportation sharing operations (e.g., Zipcar, Yellow Cab, Lyft, Ford GoBike, Bird)

In the metro landscrape, AVs, video analytics, crowdsourced sensor data, blockchain, distributed battery storage, gig economy platforms,

Using artificial intelligence enabled sensors to control traffic flow.

Uber, Lyft, Scooters, AirBnb, Driver-less Cars

Autonomous vehicles

Autonomous vehicles

car-share, ride-hail, bike-share

Driverless cars; e-bikes/scooters/skateboards

The Internet of things

context?

Rental motorized scooters

An example is CRISPR

Drones

machine learning, artificial intelligence, blockchain

Zero emission cars such as Tesla. Phone apps helping those with daily needs such as Handy. Virtual Reality. Robotics and engineering enhancements.

3D printers

3D printing, stem cell research, various apps that increase quality of life

smart meters, AI, wayfinding solutions for people who are blind,

Dahlia—the new, online housing portal for San Francisco

Self operating vehicles

AI

Technology can have a positive impact on my community.

Scale	1	2	3	4	5	6	7
# of Respondents	0	0	1	0	2	8	20

Please share a story of how a technology has affected your life.

My work as an editor became devalued, as literacy and publishing experience began to take a back seat to computer skills.

Making it more efficient

Ability help babysit grandkids from 400 miles away with Skype and Facetime.

Personally - use of FaceTime and Skype to keep in touch with family. Professionally - many benefits of technology for seniors to help manage their health and reduce isolation

Personally it has allowed me to be seen as essential in certain jobs that I have had because I have been able to use technology to create things or make something at work easier.

(Although it still needs a bit of refinement) the 311 app has made it much easier to report infrastructure issues on the fly.

In general, technology has completely changed how people are able to move throughout the city (from seamless payment systems, to different modal options, to having the information to better plan trips).

E-mail & websites have allowed me to communicate to many more people & agencies , on more topics, and on any day & time. Transit info. options --including paratransit -- have allowed me to continue to travel easily and widely throughout Bay Area.

The emergence of devices, apps and platforms that allow me to easily communicate with my family, friends, and those with whom I've lost touch has both cemented old bonds and encouraged new ones.

Technology has made it easier for me to communicate with my staff with apps such as Group Me, which allow us to share information quickly and efficiently.

My first computer when I was 10 - fewer friends but skills later in life

I've been in tech nearly my adult career

We have a network of 350 public facing surveillance cameras using the edge computing framework which is responsible for over 300 arrests. We also integrated pedestrian counters in some of the sensors to increase the functionality of the system. We have also deployed 25 "smart" iOT trash receptacles.

Uber/Lyft Drivers; thousands come in from out of the city, ignore traffic laws, drive like idiots, park in private places. Scooters flooded the city and were dumped by riders willy nilly. While using the scooters the riders rocketed down sidewalks ignoring pedestrians and the elderly. AirBnb took many small rentals off the market and they do not pay hotel taxes etc.

I use social media for everything.

Technology makes my life easier in many different ways - turning off and on lights, getting up to date information on the weather, checking on my second home, communicating with my friends and co-workers, etc.

Technology has enabled me to travel and explore communities much easier and cheaper than a printed map or travel agent. From travel blogs to transit apps, it's much less intimidating or overwhelming due to the accessibility of real-time information and payment options when travelling to a different neighborhood, city, country, etc. as a result of technology.

we are in the forefront of leveraging tech to distribute social services

Computers are probably the technology that has affected my life the most. Without it, I would not have been able to receive the education that I have.

Got to develop and lead the City of SF's open data efforts to bring more people into the public process!

Can't imagine life without my iPhone! Thanks to the increasing computing capabilities of smartphones, they now provide a variety of uses beyond traditional phone calls (emails, photos, videos, games, GPS, music, e-reader, micro-payments, check-in/ID authentication, etc.). You can extend the capabilities of your phone simply by downloading an app. I was recently on an international trip and stayed in an Airbnb condo ("sharing economy" enabled by tech) and used WhatsApp to communicate for free w/friends and relatives in the US. Tech has reduced friction in so many areas of my life, allowing me to be more productive.

By using social platforms on the internet, specifically Facebook, Google+ and Google Hangouts, I am able to stay in contact with family and friends that live outside of the US -- for free.

I am able to use my phone to take care of emails and work away from the office

As a person with a disability, I rely on technology every day in order to provide me an improved level of physical access (especially smart/Al technologies)

By learning to build software, I was able to secure a job and negotiate for a salary three time that what I was earning before. I was able to pay my rent and do a lot of community volunteering to help others learn the same skills and find jobs.

What values should the City prioritize when considering emerging technologies? Please select up to 5 values.

Value	# of Respondents
Accessibility	20
Collaboration	11
Accountability	14
Security	16
Efficiency	10
Ethics	8
Equity	16
Labor Standards + Fair Wages	7
Privacy	10
Public Safety	13
Sustainability	14
Return on social benefits	1
Properly regulated	1
Unintended consequences mitigated	1
Informing people and training	1

What opportunities or benefits do you see with emerging technologies?

A project of filming homeless people and posting their stories on social media has brought about some family reunions. I consider this a good use of technology.

help us to be more efficient with limited resources

Allowing people to take charge of more aspects of their lives.

Ability to help people age in place successfully, as well as maintain healthier living across the lifespan

Making certain work safer for employees

More efficient, sustainable and personalized responses to communications, transportation, mobility issues.

The major opportunities for any emerging technology is to make daily life easier and more seamless.

Transportation that is easier to access and to use

I'm still trying to understand the thinking behind the self operating vehicle. From what I know about these vehicles is that a person will have the ability to complete work while waiting in traffic, or have the vehicle park itself if you're late to a meeting.

We have the opportunity to redesign our neighborhoods and our cities if we collaborate with emerging technologies to optimize their impact on our lives.

Not sure

prioritizing syringe cleanup crews using predictive analytics

rethinking the way the CCSF delivers services / engages residents so we can do totally new things rather than just improve the efficiency of the old processes.

Better, more efficient deployment of City assets and greater accountability.

None. The technologies are so poorly regulated that almost all impacts are negative.

There will be few benefits unless the costs are addressed.

Opportunity to shape them to benefit the community at large

Emerging technologies can make the world more accessible and enhance the lives of the majority of society by enabling us/ them to have experiences they may not have had or known about without emerging technologies. Ex/ car-sharing enables those who don't own a car to have access to experiences that may require a car)

AI to supplement case management

Emerging technologies have the opportunity to literally save lives. They can also significantly improve the quality of life for people and increase accessibility to necessary health, education, and other social services

Safety, more options

potential to disrupt entire industries in a positive way (cheaper, faster, better); also potential for significant (economic/social/political) positive impact on a global scale; tech can be a great equalizer opening up opportunities for all

I think the most obvious benefit of emerging technologies involves the simple fact that it ultimately makes life easier and more efficient for humans. But we're also learning that it can not only benefit a human but it can also benefit the environment and natural world that we live in. Emerging technologies are finding cures to diseases or are helping our medical field immensely, they are helping us live a greener life, and they are also helping us connect with those across the world for free.

Making K-12 Education cheaper and better with Raspberry Pi

Can change people's lives for the better -- could be game changers - nsave lives, etc

Emerging technologies are underutilized, by people with disabilities, who may have the most to gain by engaging with the technology,

If we are smart about emerging technologies, we can build an ecosystem that will unite and support most, if not all, San Franciscans.

New faster ways of using data to solve complex problems

What issues or concerns do you have about emerging technologies?

Face-to-face communication and connections with neighbors continue to shrivel, driving out small retail that acts as glue in communities.

I live in fear of the scooters on sidewalks.

They are investments with uncertain benefits and public impacts

Often unintended consequences of new technologies

Privacy issues, data tracking of peoples' movements and activities

tech replacing people in the workforce

When new technologies intersect obliquely with existing systems, they may cause conflicts with the systems infrastructure that conflict with the functionality. Without socialized 'codes of conduct' or 'rules of the road' or anticipatory regulations, new technologies can encroach in a negative way on existing systems that remain

functional for many.

Emerging technologies imply something that is new and prototyping or testing, these technologies are commonly more expensive during these phases and initial market adoption. This means that there are/should be equity concerns during the roll out of any emerging technology, noting that most of these technologies end up positively impacting those who can afford them and not society as a whole.

Another concern with emerging technologies is they often provide a lot of user data or utilize user data in a new way, which bring up a multitude of other concerns, such as data privacy, data rights, targeted advertising, and liability of data leaks among others. Most of the above are self-explanatory except for targeted advertising, essentially the notion that too much targeted advertising will 1) facilitate social stereo types and 2) decrease the opportunities to learn and grow from new products and ideas that may not necessarily align with historical search or shopping patterns of an individual.

Safety precautions important to all but not thought of by the inventors/ entrepreneurs.

With new technology making work so accessible, I'm afraid that people will forget how to enjoy life outside of work.

There is a lot of money behind some of these new technologies and often the ROI demanded by many investors is not aligned with the public good.

it replaces the need to use humans and therefore takes away jobs in my opinion.

benefits reaped only by for profit enterprise

making sure they integrate with the city's existing infrastructure & processes, making sure they increase social equity rather than erode it, does the city have the staff capacity to effectively manage it without losing control or stifling innovation, making sure we don't privatize the gain while socializing the risks, security

Cybersecurity threats hacking into the system and extracting data.

Uber/Lyft Drivers; thousands come in from out of the city, ignore traffic laws, drive like idiots, park in private places. Scooters flooded the city and were dumped by riders willy nilly. While using the scooters the riders rocketed down sidewalks ignoring pedestrians and the elderly. AirBnb took many small rentals off the market and they do not pay hotel taxes etc.

My #1 issue is that a lot of emerging technology companies aren't accountable for their actions. In the gig/shared/bread crumbs economy, the users become the product so emerging technology companies exploit them and don't take responsibility for the effects of their business model on cities and people.

Due to the very slow movement of governments in general and SF in particular, the emerging technology of this area (see motorized scooters and Uber/Lyft as just two examples) have taken the attitude of "move forward, become widespread as fast as you can, deal with the fallout, force the BOS to deal with you in Internet Time". This will remain true forever as long as we have these meetings that take 6 months to decide what to do. I'm sorry, but this is just an example.

1) Equity 2) Fake benefits, like ride-hailing... Are more (and newer options) that much better for society than improving previous taxi options? 3) Costs of development may outweigh benefit to society.

income inequality

I am concerned that our clients will not have good access to these technologies due to lack of accessibility/education

Lack of oversight, coordination with government.

On the flip side, tech can also widen the digital divide between the haves and have-nots. Also, as with anything, the potential for misuse/abuse exists. A recent example: the spreading of fake news via social media.

Right now living in SF, I've observed that one of the major concerns of emerging technologies would be the taking away of jobs and kicking people out -- gentrification. This is is leading to a higher rate of homelessness and/or a major struggle to live in a big happening city like SF. Same exact thing is happening in Seattle and other major cities in our country. Emerging technologies are coming up with quicker and easier ways to benefit our lives, thus kicking out the older versions that we've used for so long. Emerging technologies has lots of benefits but also just as many concerns.

Nothing with the technology - mostly with resistance to change.

The people who need it most, will not have access to these technologies due to the cost or because they will not know they exist

As I mentioned to the steering committee, you can't "emerge" with technology until we as a city have made a commitment to meeting baseline ICT accessibility requirements needed to support that technology

Sometimes the focus tends to be on technologies that are really only available to those with the right devices, funding, and knowledge.

Does new technology deepen social and economic inequality?

The City knows how to address problems with emerging technologies.

Scale	1	2	3	4	5	6	7
# of Respondents	5	7	5	12	1	0	0

What should the City do to make sure new technologies support San Francisco values?

Stop taking so much money from big tech donors.

Safety First. Then, analyze how emerging technologies affect ALL, not just the able-bodied single adults who develop or market new technologies.

Children, adults with babies in tow, seniors, groups of school kids, people with disabilities, those who do not read or understand English ALL must be considered when bringing online to market.

Work with all sectors of society

Regulate all new technology offerings BEFORE they hit the streets.

Have a "Tiger Team" inside of the the government that looks ahead at technology that is emerging and forces the BOS and other city organizations to do something about them in "Internet TIme" versus "San Francisco Government" time. One definition of crazy is doing the same thing more than once and expecting different results. The city government continues to work at a speed that causes outside organizations to force issues by deploying first and then asking for forgiveness. This will continue until this changes. You really should have a group of experts deal with this. Input from the community can for the most part all be done online. People that want to comment don't have to appear in person. I could go on and on. Change the way you do business - you must in order to deal with the "emerging technologies" ahead. San Francisco and the bay area are full of start-ups - or haven't you noticed?

#### Nothing

The City should monitor and have regulations on testing new technologies in the City. This way the City can confirm that these technologies support SF values and ensure that while in testing technologies do not danger the public or impact City policy too much. For example, the various Scooter companies, while there are now permits and regulations on them when they were prototyping and testing there was no forward thinking policy making to ensure that riders are safe or that these scooters would not block public infrastructure (e.g., sidewalks).

Adopt a more data driven approach and define outcomes rather than trying to regulate the implementation

Control and monitor the infrastructure the technologies have to use.

Technology is here to serve the people. Government is to curb the excesses of capitalism. City Hall has been captured and neutered so I'm not sure it can perform its functions and duties appropriately. It's up to the people.

Enforce a requirement to all employees working at a new and old technology company to complete a certain amount of hours volunteering somewhere that helps ours working class to low income and homeless folks in the city. A few tech companies already do but I think this should be a requirement for all tech companies. By making this a requirement, those who work in the tech field in SF will truly be able to not only see who their neighbors are but will become better informed about what is going in our city right now. Having experienced exactly this with our own volunteers, I know that by doing this, they will more likely become more inclined to make change, have a voice, and bring that to their company.

Incorporate them into its ICT plan

emerging technology developers should be required to work with the City during product and business model development to plan for appropriate integration into public realm systems.

Engagement. San Francisco should reach out to companies headquartered in the city to bring the cities values into offices, and to invite employees to engage with the neighborhoods where they work.

engage with user groups/community vetting process

You can start by utilizing modern tools internally.

Test these out with the proposed users for feedback. Assess the results of the these technologies regularly to make sure they are having the intended results

Make the new technologies are accessible to all.

Create a legislative and regulatory process that requires collaboration before an industry and existing rules are "disrupted".

consult with San Francisco residents of all demographic strata

Advocate on the state and federal level to hold companies accountable.

Collaborate with new emerging technology providers from the start of new product development. Hold them accountable for costs of testing in public spaces and benefits to society. Make a transparent grading sheets to qualify/ disqualify emerging technologies based on SF values PRIOR to launch of the technology.

I am not sure, but I look forward to attending the meeting and hearing more ideas.

encourage civic discourse in a 'safe' online/offline space; educate/engage those impacted by the tech; clearly define what those 'SF values' are and make sure they reflect those of its residents; proactive approach to tech as opposed to a reactive one; establish clear accountability and a measurement framework to assess "actual" long-term impact (so many technologies make big promises but don't deliver when it comes to sustainable long-term economic/social impact)

#### Not sure

Get input and have focus groups that involve all kinds of people. Diversity and inclusion

# JULY 23 POST-MEETING SURVEY

How would you rate the meeting's success?

Scale	1	2	3	4	5	6	7
# of Respondents	0	0	5	1	2	6	0

#### What worked?

Small group brainstorming sessions, having a great representation of all public and private stakeholders

Break-out sessions were helpful and productive, facilitation was smooth, and participants were engaged.

Very appealing concept that resulted in a lot of attendees from diverse industries

brainstorming in small groups

Small groups

I felt that breaking into the smaller groups was both collaborative and an effective way of getting participation from more people. Our facilitator did a great job of leading when necessary but mostly transcribing what we said and staying out of the groups way.

Well-thought out categories & principles

The facilitators of breakout groups were good.

Good ideas toward improving the impact of technology.

It was a good discussion, I'm just really curious how you will use the workshop or if you are just checking a box. Small group facilitators worked well.

facilitation in the small groups was good

Here other community members perspectives

Relevant questions that were asked

# For future meetings, how could we improve?

Sort by public and city staff? Lots of hot air and talking past each other from the members of the public in my breakout group. As a city employee it would have been nice to have a more productive convo with my peers, vs. the ham sandwiches from across SF.

Meetings during the work day are easier to attend. The texting function didn't work for me.

Narrow the scope of "emerging technologies" and engage high-level City staff.

More focused prompts to generate a more usable set of information from the break out sessions - I can't tell what will come of that information as it seemed lofty. Perhaps prompts for more concrete or more out of the box ideas, priorities, or prompts/hypothetical scenarios that create intentional tension.

focusing either the meeting or each group on more specific issues. For example, now that we thought about the overall goal for the city in balancing emerging tech with the needs of citizens. Another meeting could have groups broken up by topic: mobility, transparency, affordability, housing, homelessness, drugs on the street, etc.

More diverse set of stakeholders

Anxious to see what comes next.

1] more time ; 2] mid-afternoon 3] better ventilation 4] spread out topic groups more--too often too many voices from nearby groups made it difficult to hear our own participants

Work harder to get representatives from Bayview and underserved districts. The affluent districts were over represented. Work harder to get a broader diversity of ages. The participants were too tightly clustered around generatively age. Not enough seniors and youth.

A little more focus. Maybe more emphasis on "how" to better manage emerging technology. Without the "how" it all could be for nothing.

Please have more diverse attendees across different communities, sectors, and interests, especially from the private sector and people of color, which were both lacking. Also, please try to mix up the small groups, some of the small groups all came from the same sector and it didn't call for a good discussion. It would also be helpful to have had more time for introductions as I didn't feel like I understood what people's working knowledge was when we just jumped into the exercise.

Having a few more people in the groups would have provided for more differing opinions.

Need larger space

Answers opinions were too broad and not enough time to hone in on.

# Is there anything that wasn't discussed in the meeting that you would like to share?

I think our group kept getting caught up on "emerging technology in mobility" vs. "SF as the tech industry hotbed and what that means for transportation and mobility."

Nope!

Discuss how policy at the local, state and federal levels intersect emerging technology (positively/negatively). How can we adapt and implement enforceable guidelines while also remaining flexible and adaptable.

Yes - what is local government doing to solicit the help of technology creators/emerging technology to solve some of its highest priority needs or needs of the communities it represents?

I see the next 10 years as a one-time opportunity to rethink SF, and to use emerging technologies to create a livable, green, sustainable environment for its residents and business owners.

Urban Design and Land Use considerations

Nope

Pro-active/ pre-emptive enforcement considerations need be addressed;

outreach to Children's Council about including childcare professionals and SFUSD about elementary grades' teacher[s].

?Maybe an online presentation in languages other than English, so non-English speaking professionals & advocates can equally participate?

What the new Mayor's priorities will be regarding tech, tech companies and the effects of tech rollouts on San Francisco community streets. We are not test subjects and it is not OK to simply roll out ANY technology that tracks use patterns, impedes the thoroughfare or causes congestion or quality of life degradation for the citizens of San Francisco.

How to to do it, how to better manage technology. The city can but does not get ahead of these things and they must do so. City is far to reactive and not at all Proactive as they should be. Look, many years on, and the city still does not have a handle on Uber, Lyft, and/or Airbnb.

Emphasis on accountability of companies to not break the rules and to collaborate with cities before deploying new business models.

It's important to have more representatives of the affected companies present.

No

City's current efforts in dealing with emerging technologies