

PUBLIC POLICY AND ETHICS: BIG DATA AND EMERGING TECHNOLOGIES

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HARNESSING THE POWER OF BIG DATA AND TECHNOLOGY: AN INTENTIONAL APPROACH

- We live at a unique point in human history – where big data and emerging technologies are ubiquitous enough to be leveraged at a massive scale across the globe
- Data does not necessarily equate to usable information
- Technology is not neutral – it has values embedded in its design and implementation
- **Seemingly innocuous design and implementation choices for data-driven and other emerging technologies can have resounding impacts on people's lives**
- It is important to have a framework for the ethical design of technology
 - People-centered, outcome-focused, and action-oriented

EMERGING TECHNOLOGIES ARE TRANSFORMING THE WAY WE LIVE

Some examples of the positive effects of emerging technology:

- Self-driving cars providing mobility for disabled individuals
- Creating secure digital identities using blockchain technology
- Leveraging the internet of things (IoT) and artificial intelligence (AI) to more effectively manage scarce resources
- Improving supply chain management and resource tracking for resources like disaster aid using suites of emerging technologies
- Connecting people to education and resources through social media



CHALLENGES POSED BY EMERGING TECHNOLOGIES

Some examples of the negative effects of technology:

- Massive identity information breaches and identity theft
- Use of smart home devices by perpetrators of domestic violence
- Ransomware attacks holding computers and information hostage from individuals, institutions and governments
- Hacking attacks through internet connected devices
- Challenges posed by automation for the future of work
- Propagation of false information through social media affecting democracy



THE IMPACT ON PEOPLE: ETHICAL CONSIDERATIONS + TECHNOLOGY

- Governance
- Identity and Privacy
- Transparency
- Access and Control
- Safety and Security



WHAT DOES THIS MEAN FOR PUBLIC POLICY ON DATA AND TECHNOLOGY?

Public policy has dual purposes with respect to data and technology

- Foster an environment where data-driven and other emerging technologies thrive and create a positive impact on society
- Provide guard rails to prevent or minimize the harm to individuals or society from emerging technologies

HOW DO WE ACHIEVE EFFECTIVE PUBLIC POLICY FOR DATA AND TECHNOLOGY?

There is a fundamental challenge in the public policy mandate

- The evolution of social norms, public policy, effective legislation and regulation generally follow after the development of technology
- The speed of development and the sweeping scale of impact of technology today far outpace our public policy processes

A shared approach is necessary

- Government, civil society, industry and academia all have a role to play in the evolution of effective public policy for data-driven and other emerging technologies

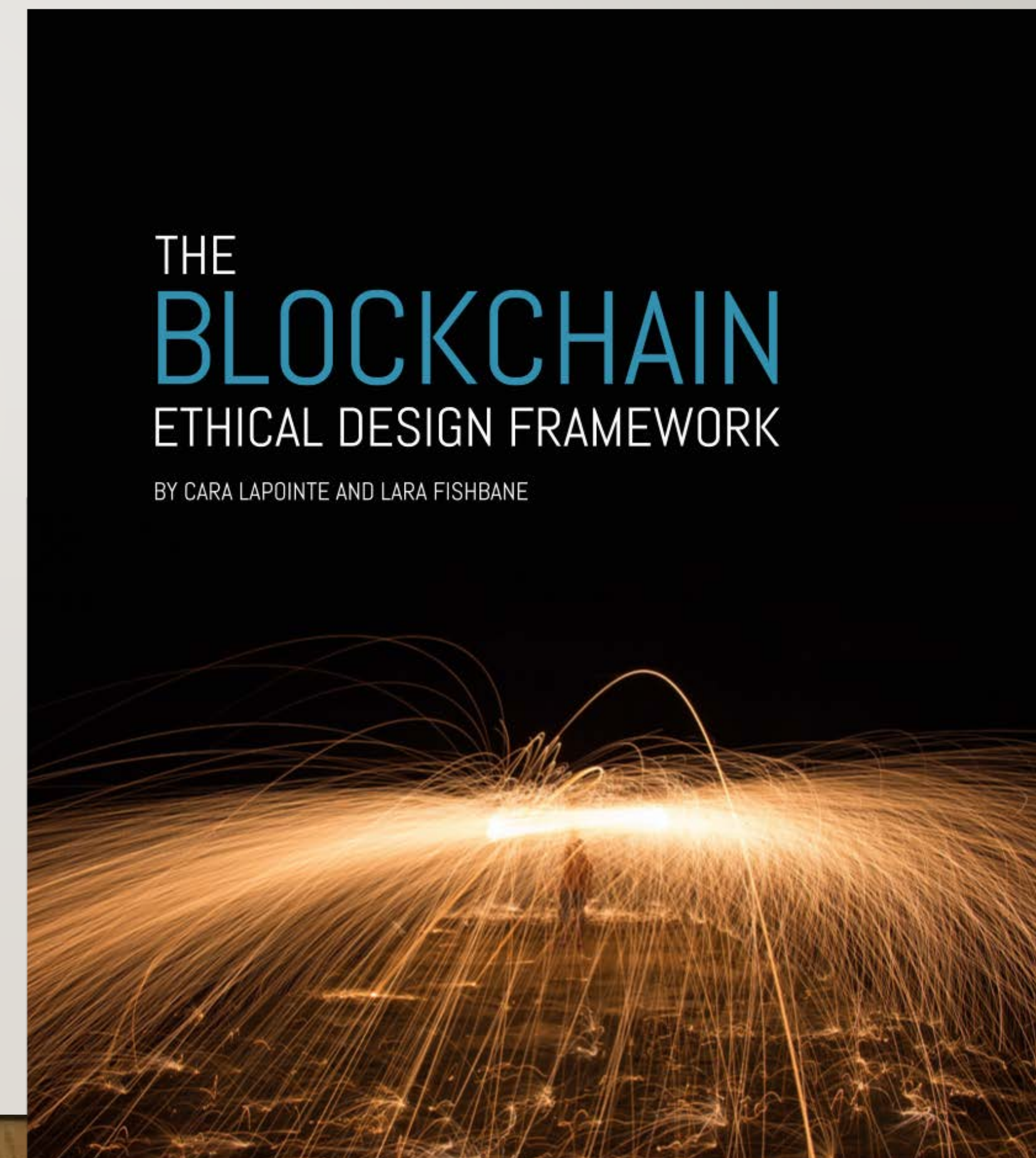
OPPORTUNITIES FOR PUBLIC POLICY COOPERATION AND ENGAGEMENT

- Digital inclusion
- Privacy
- Digital rights
- Data governance standards
- Standards and tools for the ethical development of technology

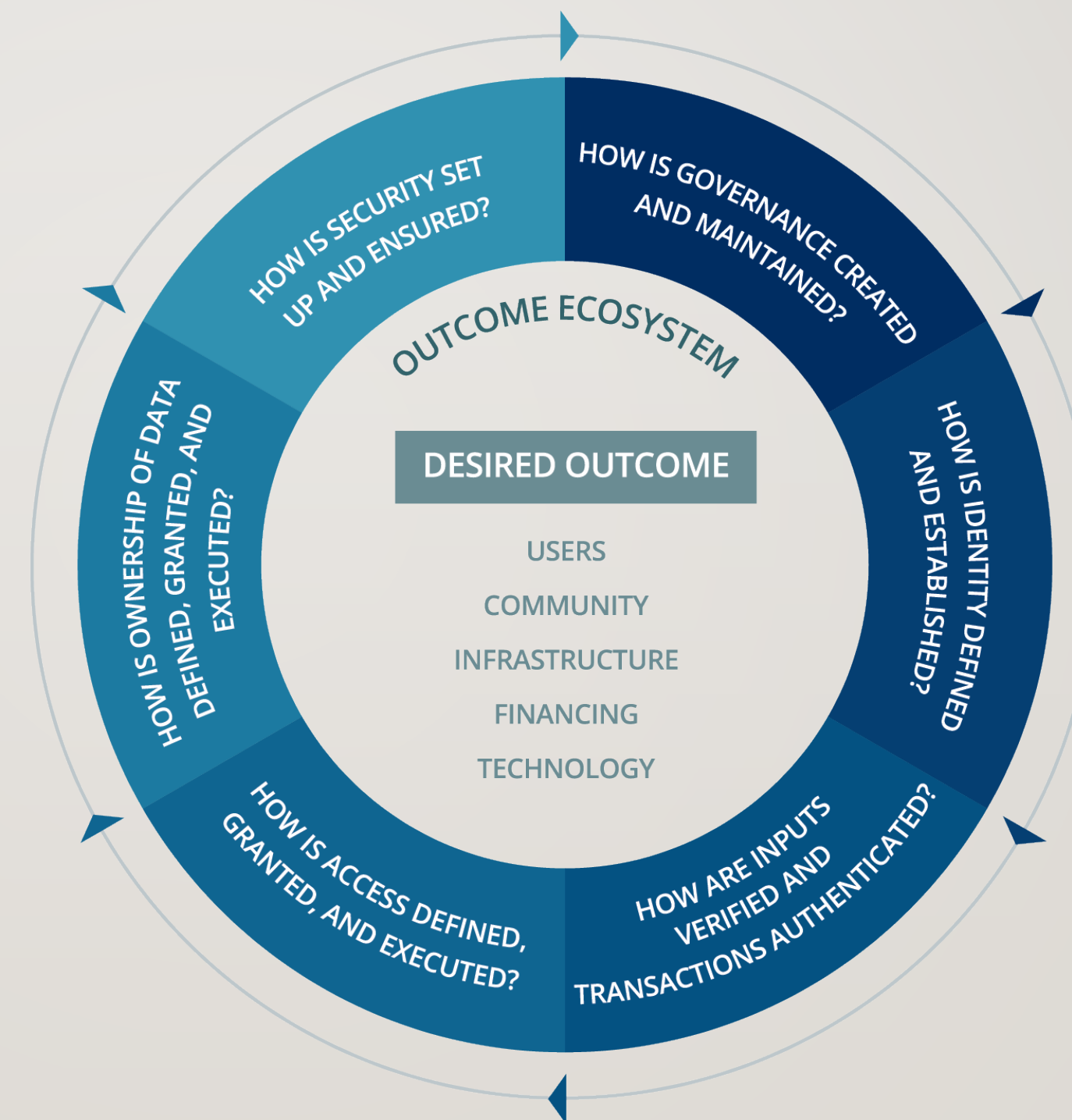


TURNING DISCUSSION INTO ACTION: CREATING TOOLS FOR ETHICAL DESIGN

- We need to build and use tools to achieve thoughtful design of emerging technologies
- One example is the Blockchain Ethical Design Framework – a tool to drive ethical intentionality into blockchain design
- <http://beeckcenter.georgetown.edu/wp-content/uploads/2018/06/The-Blockchain-Ethical-Design-Framework.pdf>



THE BLOCKCHAIN ETHICAL DESIGN FRAMEWORK IN ACTION



MOVING FORWARD: PUBLIC POLICY AND ETHICAL DESIGN TAKEAWAYS

- Data and technology are all about people
- Effective governance is crucial
- A shared approach is needed to engage a diverse array of stakeholders in the process
- Context matters, so take time to understand the ecosystem
- Ask a lot of questions
- Digitizing an analog problem does not solve your analog problem



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