Business Proposal:
Office Networking Application

CSCI E-11

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Problem Statement

- Productive work relationships are vital to a functional business
  - Many office workers are oblivious to meaningful social cues
  - Often misunderstandings are what characterize an encounter
  - Personality types aren’t accounted for when assessing interactions
- Work relationships are difficult to track using one data system
  - Data on interactions is spread across many office applications
  - Much of these interactions contain sensitive information
  - Some of the thoughts we have about office interactions aren’t verbalized
- How can we bring this data together to paint a meaningful picture for both Users and Program Administrators that they can use to adapt their approach to office networking?

Users & Program Administrators

- Program administrators will be employers of medium-to-large orgs
  - Government agencies, Public companies, Private companies, Non-profits
  - Program administrators will gain access to analytics on their workforce
  - Analytics will help admins understand the health of morale in their orgs
- Users will include employees of Program Administrators
  - Users will be able to control the granularity of the information shared
  - High-level aggregated data will be the most security Users can get in org
  - Users will benefit from constant monitoring of their office interactions
  - Users will also benefit from prompts/recommendations to tend to relations
- The Office Networking App seeks to improve relationships at organizations around the world by characterizing the health of relationships for employers and Users such that clarity and harmony are easier to achieve

Technology Involved

- **Big Data:** Google Cloud Platform; columnar databases; OLTP database; Array DBs; Hadoop; Spark; Coresets; Graph DB + D3 for data viz; Python/C++/Scala; Machine Learning libraries (TensorFlow/Sklearn/etc.); Multi-aspect summarization
- **Internet of Things:** Connected hardware (microphones, cameras, sensors, thermometers, light bulbs, etc.); Local gateway computers; Indoor localization; API connections to other services (e.g. vehicle)
- **Cybersecurity:** Securely typed programming languages for server-side; Randomized disk block encryption; Public-private key cryptography; Data sanitization of web apps; Privilege separation; Trusted Platform Module; Tamper-resistant hardware; BitLocker; HTTPS; Minimal trusted computing base; Ascend processor; Retro; Secure multi-party computation

Proofs of Concept, First Funding Round

- Initial funding will be enough to see us through several POCs
- Clients/program administrators for the POCs will be sought directly
  - Organizations that have tenuous office networks (e.g. tense environment)
  - Initial program administrators will be sought to adopt the product for free
  - Larger clients may be offered equity for data & contractual adoption
- Proofs of Concept to show progress:
  - Security Proofs of Concept
  - Analytics & Data Infrastructure Proofs of Concept
  - Internet of Things Proofs of Concept
- Once POCs are demonstrated we will be ready to leave stealth mode

Post-POC Revenue Model

- Once all POCs are demonstrated we will be ready for market
- After proof of concept, before marketing:
  - Digestion of learnings; Re-formulation of Strategy
  - Begin iterating towards scalability
- Market to organizations with (1) traditional departments, (2) large in size (500+ employees), and (3) have a history of issues with morale
  - Start with one industry to continue iteration cycle & learn
  - Leverage learnings from proofs of concept to convince early adopters
  - Provide early adopter discounts for focus groups, UX research
- Pricing will be determined based on empirical results on cost to supply services during POCs and contractually arranged pricing negotiated with service partners (e.g. Google)
  - Pricing will also be tiered based on features (Gold package has it all; Bronze is bare bones)

High-level & Immediate Needs

- Talent Necessary Immediately: Cloud Data Engineers; Security Analysts; Data Scientists; DevOps/System Administrators; IoT Engineers; UX Designers; Ruby Web Developers;
  - Talent to be acquired *ad hoc*: Quantitative Marketing Analysts; Accountants
- Hardware necessary:
  - Compute infrastructure: Aside from reliable laptop machines, the majority of our engineering will take place in cloud environments. Backup servers will be hosted in two (undisclosed) strategic locations in the US
  - Our IoT proof of concept will require the most hardware investment (sensors, etc.)
  - We'll need to work with our cloud providers to ensure our servers are running tamper-resistant hardware
- Proofs of Concept
- Vendor relationships: Google Cloud; Amazon Web Services
- Industry partners: Slack; Microsoft; Tesla (+other providers);
  - Plus, all of our Program Administrators.
  - Our users will engage in secure multi-party computation to enable them to learn more about the productivity of their workforce.
- Goals for funding: We are seeking to raise a first round of angel investment, to be followed (after successful POCs) with a first round offering to begin scaling the concept to a broader market

Questions?

Thank you!