



# The future of accounting tech

Jason Hastie, MPAcc, CPA, CA

A photograph of two young women with blonde hair, one in profile and the other with her back to the camera, engaged in conversation outdoors at night. The background is dark with some blurred green foliage. The text is overlaid on the right side of the image.

**Take a few moments  
to CONNECT with  
your neighbour**

# CPD Process

## In order to receive CPD credit

- Be sure to sign in or scan your badge for this session
- You must stay in the session for the duration of the training
- This session is eligible for **1 hour of CPD**
- CPD certificates are emailed directly to you within 4 weeks of the conference date to the same email address you used to register

# Today's speaker



**Jason Hastie**

Founder of TenjaGo

@tenja\_go



# About today's speaker



Jason Hastie

**Saskatchewan** (Birsay, pop.68)

**B.Comm and MPAcc**

University of Saskatchewan

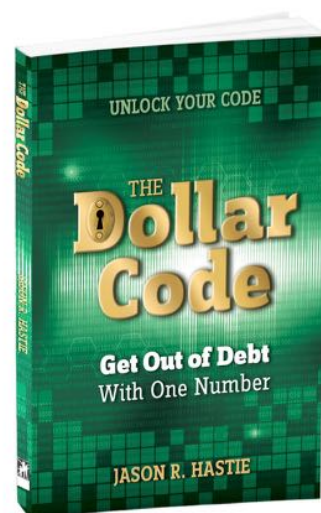
**CPA, CA**

**Founder of TenjaGo** ("to connect")

# About today's speaker



**Lead Singer of Jason Hastie and The Alibi**



**Author of The Dollar Code**



**Blockchain / Cryptocurrency Nerd**

# Purpose of this session

Learn how

**Cryptocurrency, Blockchain,  
Artificial Intelligence (AI), and Machine Learning (ML)**

will revolutionize the way you work with *clients*  
and **within your practice**

# Audience Poll

**Who completely understands?**

**Who thinks they understand?**

**Who is confused??**







The Today Show (1994)

Internet vs Email → Blockchain vs Cryptocurrency  
(Internet 2.0)

# Agenda

(what you will leave today understanding)

## What are Blockchain and Cryptocurrency?

- How do they work
- How are they different ... and where does Bitcoin fit into all of this?

## What is Artificial Intelligence and Machine Learning?



**How will these technologies change the way you work with clients and within your practice?**



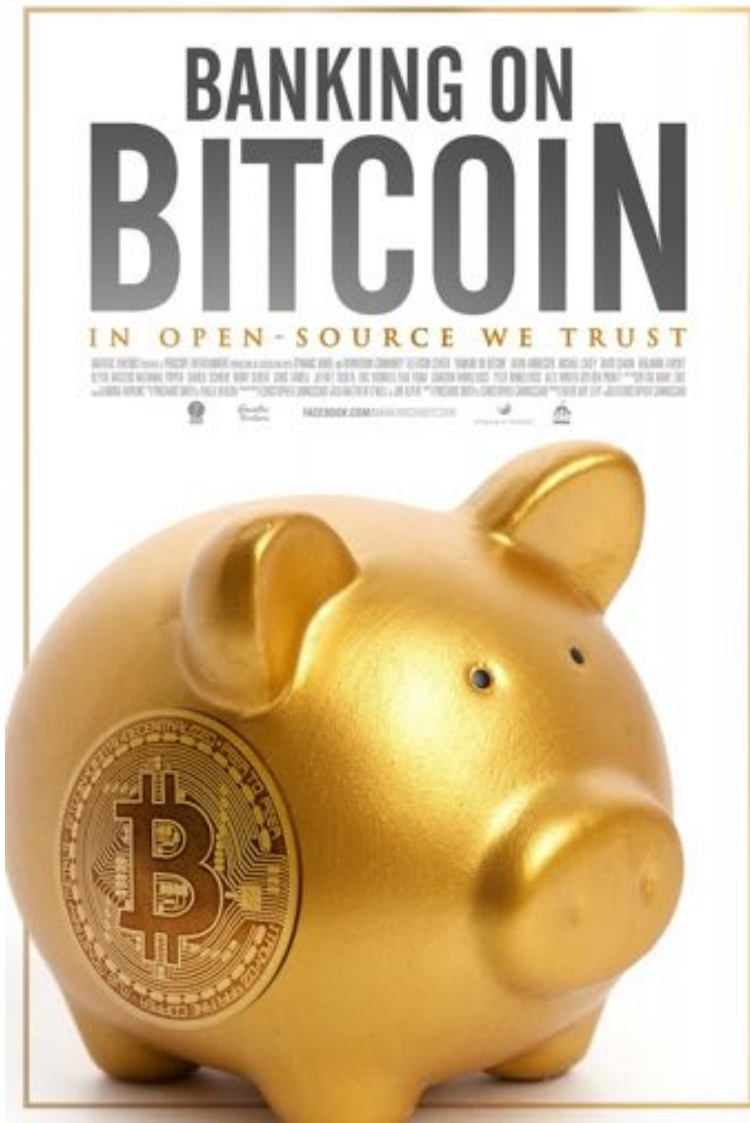


Image Source: IMDb

**Documentary available on Netflix**

**Watch the first 15 minutes**



Blockchain is a decentralized, distributed and public digital ledger that is used to record transactions across many computers so that the record cannot be altered retroactively without the alteration of all subsequent blocks and the collusion of the network.

Wikipedia

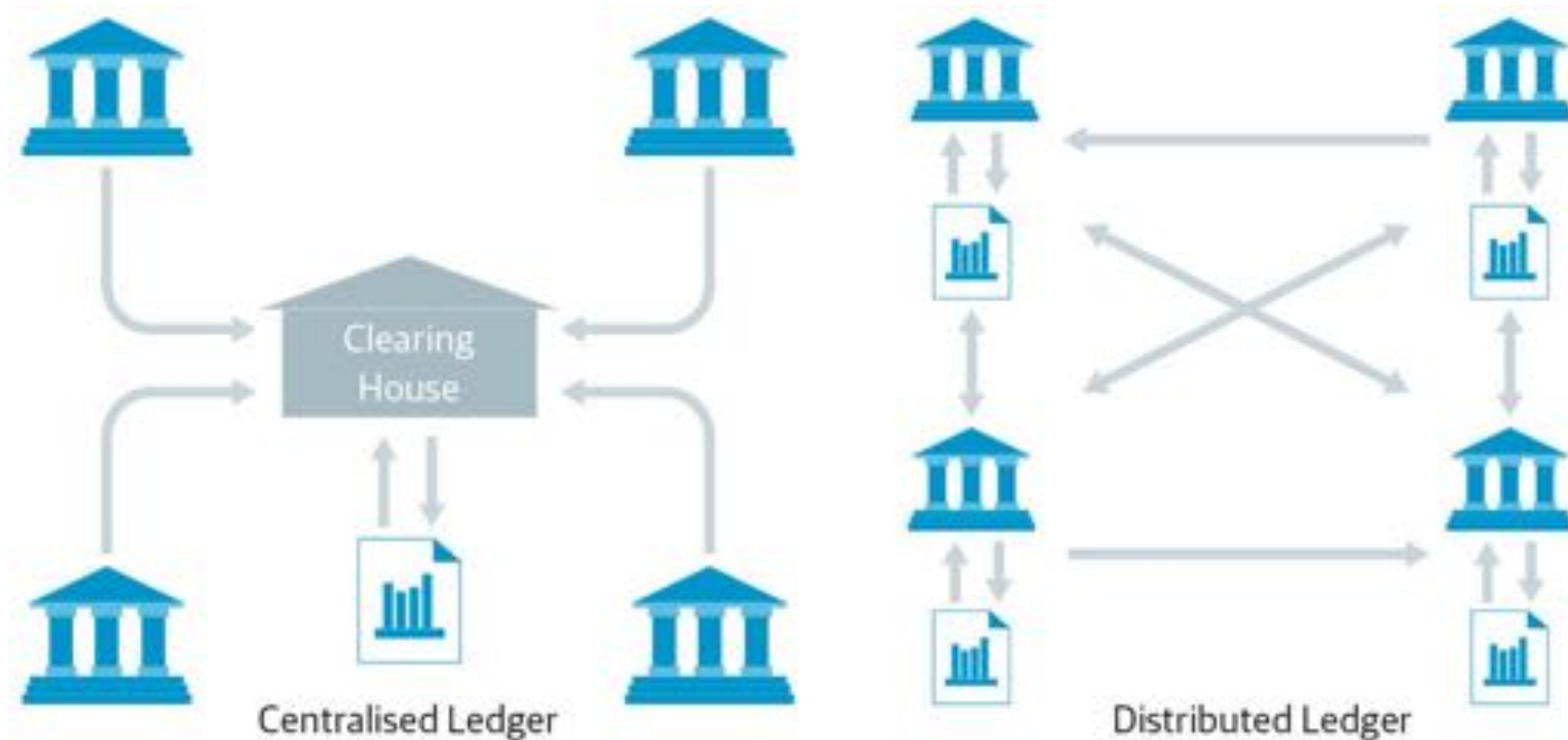


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Wikipedia

# Decentralized and Distributed

A distributed ledger is a network that records ownership through a shared registry



Source: rathbones.com



# Decentralized and Distributed



Server-based



P2P-network

Source: cloudbclabs.com

# Digital Ledger

– An asset (e.g. money)



# Digital Ledger

– Database of agreements (i.e. contracts)



# Record of transactions that cannot be altered

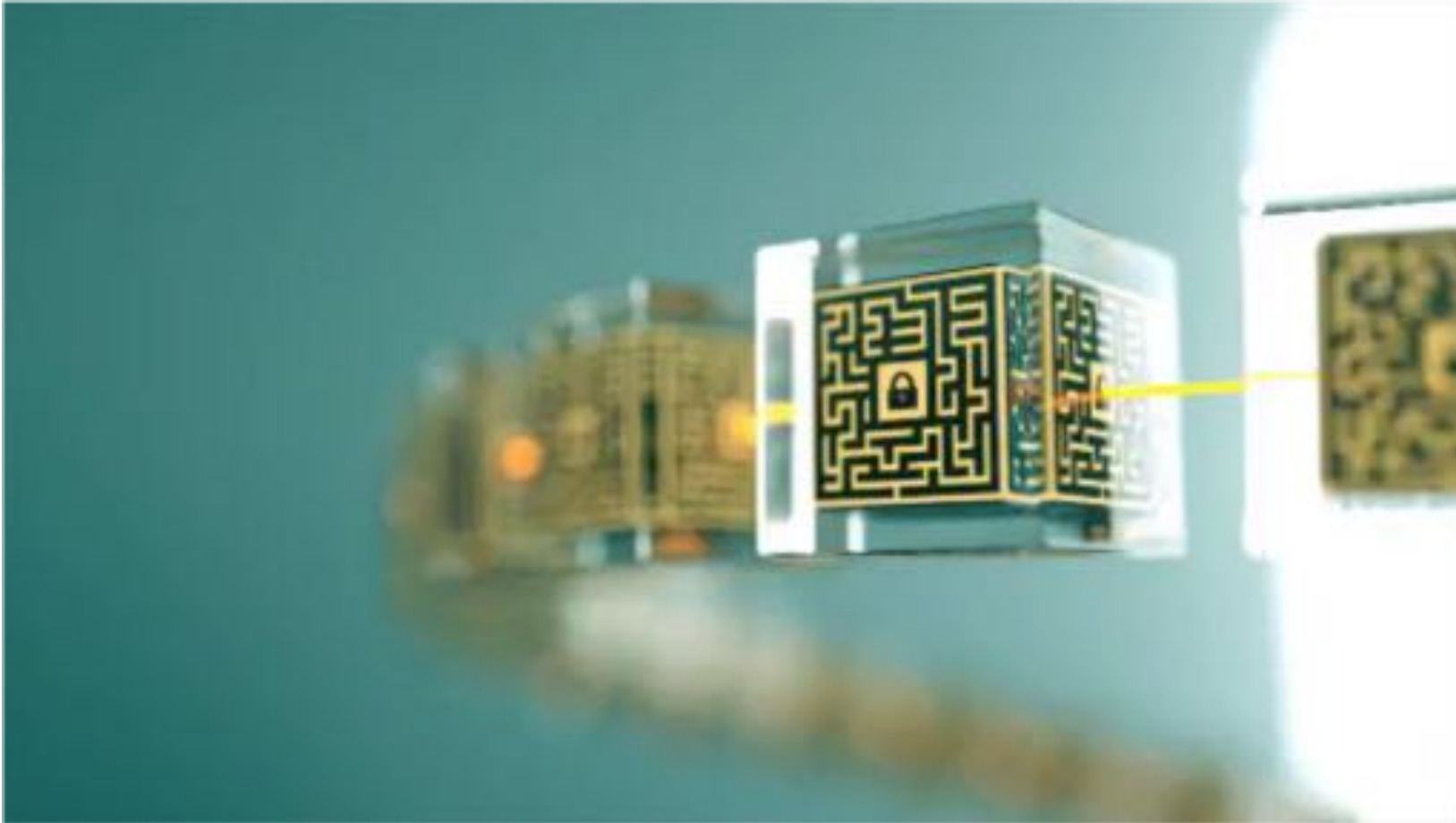
## Block

- A bunch of data (transactions) held together

## Chain

- Each block is linked to the next ... making it a chain of data

# Blockchain in the diamond industry



# Strengths and Weaknesses of Blockchain Technology

## Strengths

- Transparency
- Removal of middleman
- Decentralization (unhackable? HD, Equifax)
- Trust (e.g. ID theft, home titles)
- Reduced cost
- Transaction speed
- Supply-chain (e.g. romaine lettuce, cannabis)
- Public vs Private (Walmart ... 5 day trace)

## Weaknesses

- Lack of privacy
- No centralized control
- Cost and environmental impact
- Transaction speed



A cryptocurrency is a digital asset designed to work as a medium of exchange that uses strong cryptography to secure financial transactions. Cryptocurrencies are a kind of alternative currency and **digital currency**. Cryptocurrencies use **decentralized control** as opposed to centralized digital currency and central banking systems.

The decentralized control of each cryptocurrency works through distributed ledger technology, typically a blockchain, that serves as a public financial transaction database.

**Bitcoin, first released as open-source software in 2009, is generally considered the first decentralized cryptocurrency.**

Wikipedia

# Cryptocurrency

## Crypto

- Uses cryptography (basis of security)

## Currency

- Something of value that can be exchanged for something else of value
- Money is just an accounting system



# Top 5 Cryptocurrencies

(coinmarketcap: Nov2018)

- Bitcoin (96b USD)
- Ripple (18b USD)
- Ethereum (Vitalik)
- Bitcoin Cash
- Stellar

# Why are Cryptocurrencies important

## Global means of payment – knows no borders

- Stable vs unstable government and currencies

## The Unbanked

- Percentages in third world *and* developed countries
- 2 billion people (28% of the world's population) over 18 years old do not have a bank account and hence a history of credit – source: World Bank

## Alternative to central banks

- Decentralized and distributed
- Hack resistant?
- Centralized exchanges (Mt Gox)

# More than just currency

## Smart contracts

- Parking your car

## dApps

- Apps built on a decentralized platform
- Incentivizing – currency is the value (e.g. Whopper Coin - loyalty, Streamer/DATACoin - exchange of data)

## Mining





Machine learning (ML) is a field of Artificial Intelligence (AI) that uses statistical techniques to give computer systems the ability to "learn" (e.g., progressively improve performance on a specific task) from data, without being explicitly programmed.

Wikipedia



# Examples of (ML) in our 'everyday' world



- Waze (traffic/commuting)
- Gmail (latest version)
  - Predictive text
  - Spam filters



- Minimize wait time
- Determine cost of ride



- Natural language
- Voice recognition



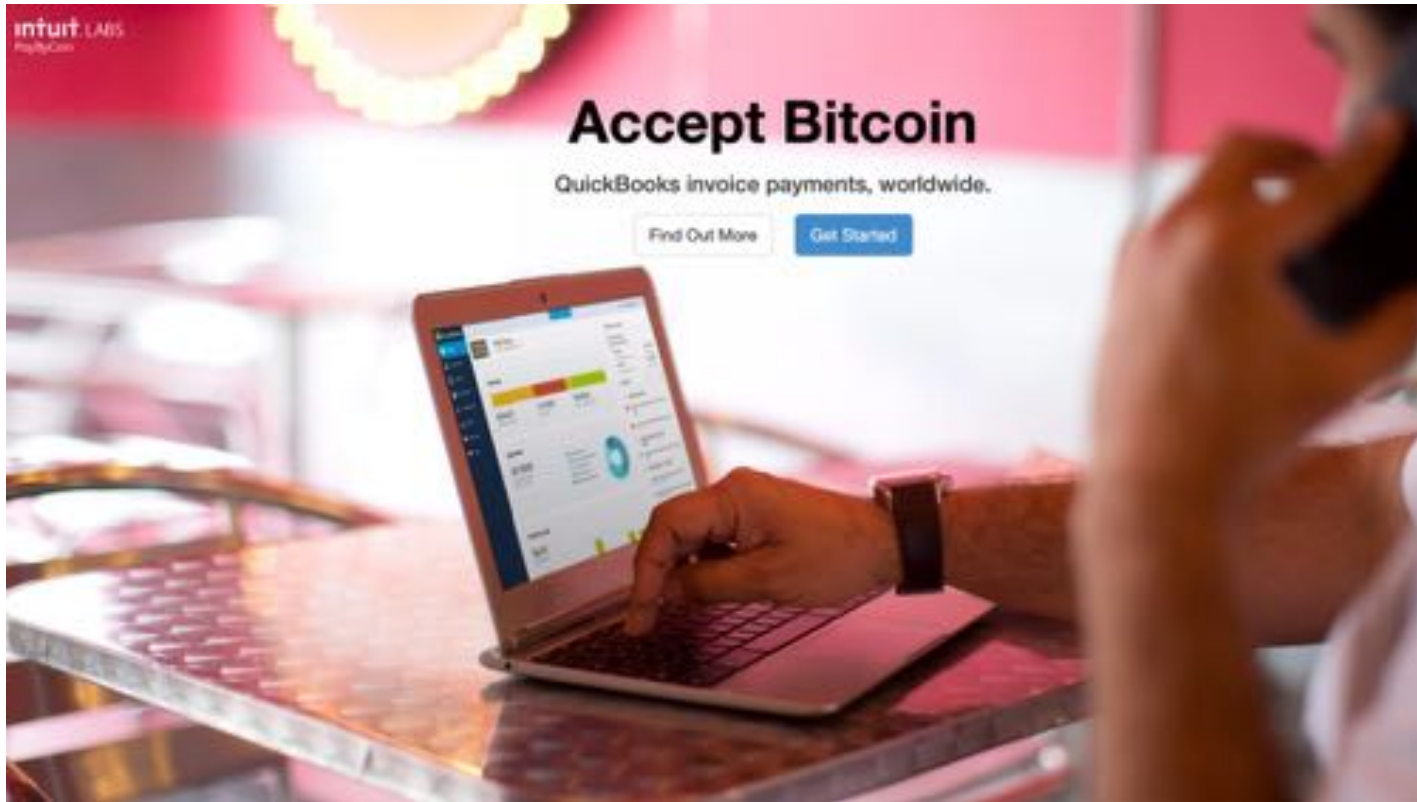
- Recognize & categorize transactions



- Natural language texting

# Revolutionizing the way we work with clients & within our practices

Getting Paid





# Revolutionizing the way we work with clients & within our practices

## Setting up the Chart of Accounts

- Handling multi-currencies

## Tax and Accounting Treatment

- Is Cryptocurrency an Investment?

## Impact on Auditing, Accounting and Bookkeeping (source: Aynsley Damery)

- Reduced Workload (Big4 Asia audits: 15 days to 1 day)
- Real-time Auditing
- Triple-entry Bookkeeping
- Advisory work on ICOs, revenue recognition, fair value
- Better (more reliable) data for better business advice
- Overall move to advisory as repetitive tasks become more automated

# Revolutionizing the way we work with clients & within our practices

**South Korea investing \$100b: 10,000 blockchain experts**

## **Interactions of blockchain and AI**

- Verification of data, increased efficiency
- Blockchain-based accounting software

## **KYC standards**

- Know Your Client
- Anti-money-laundering

## **Other ??**

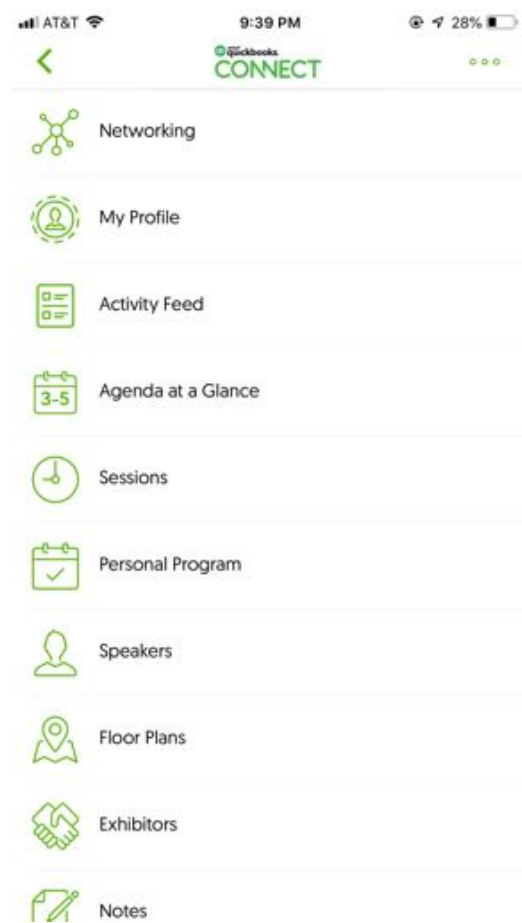
# Questions?

**Blockchain**  
**Cryptocurrency**  
**AI and ML**

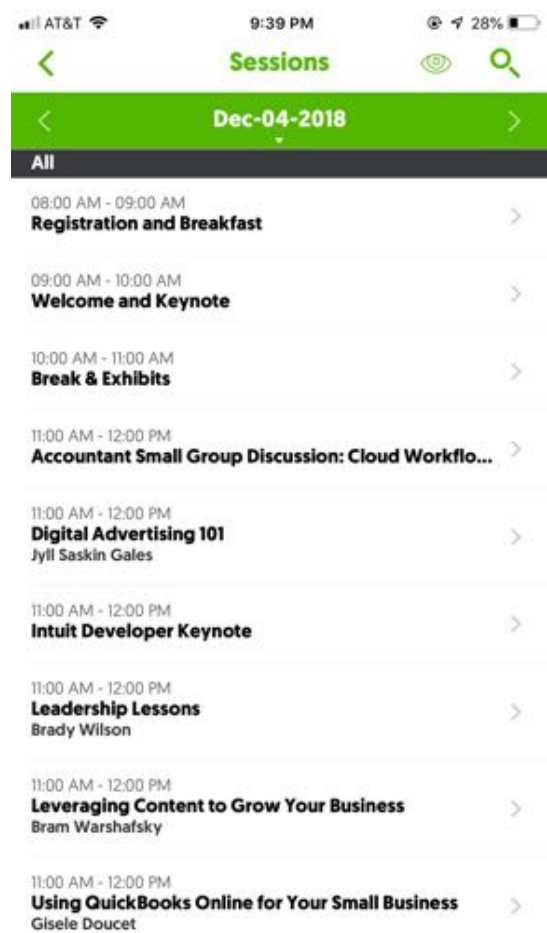
Give me feedback at [JasonQBC@TenjaGo.com](mailto:JasonQBC@TenjaGo.com)

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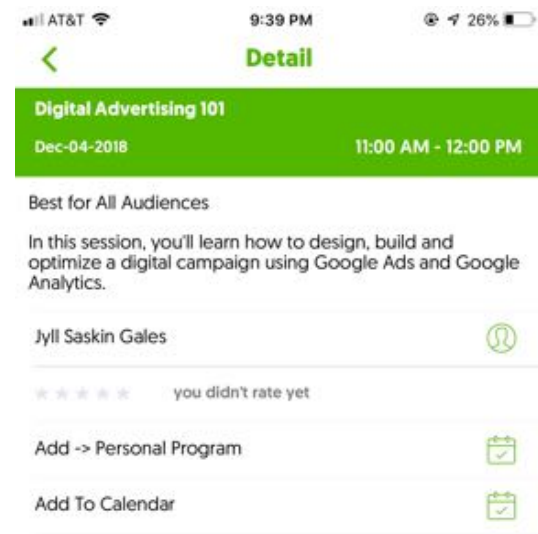
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	Using QuickBooks Online for Your Small Business	+
	Warrior Approach to Productivity • session repeats	+
	Accountant Small Group Discussion: Cloud Workflows	+
	Intuit Developer Keynote • session repeats	+

