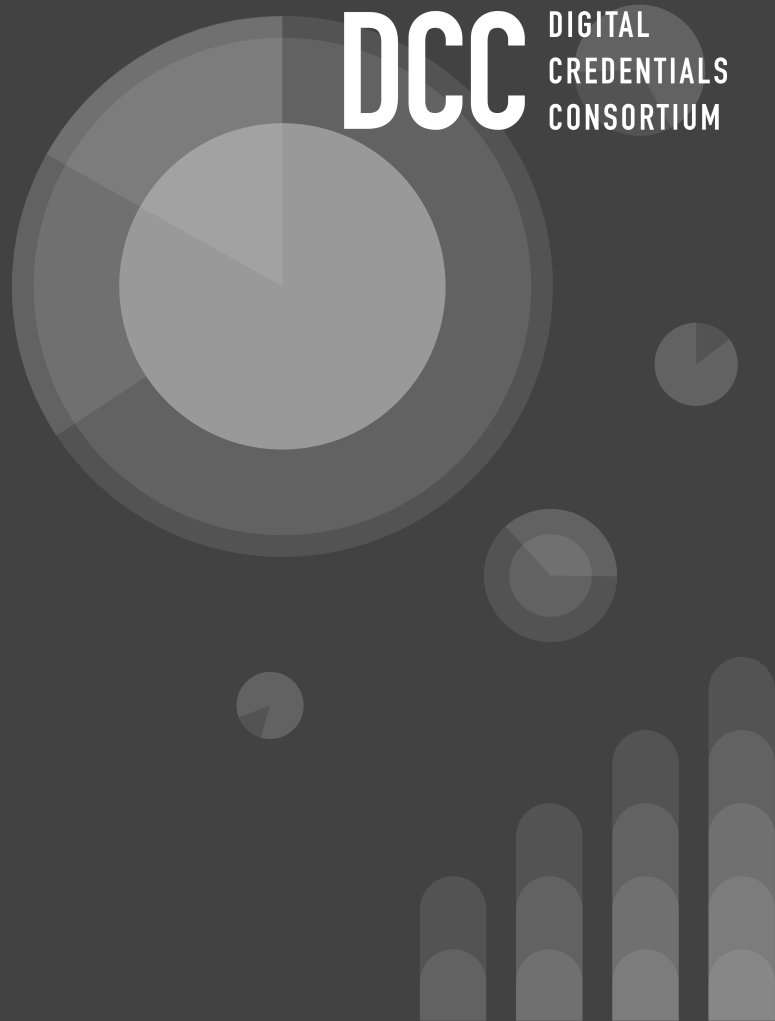


Learner Credential Wallet

Brandon Muramatsu, MIT



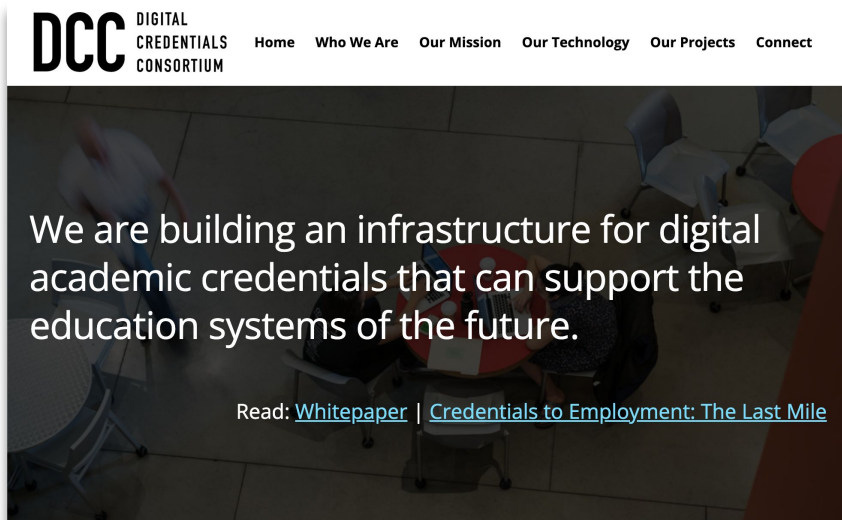


Overview

- Digital Credentials Consortium
- Verifiable Credentials
- Learner Credential Wallet
- Demo

Digital Credentials Consortium





White paper: bit.ly/DCC-whitepaper

12 Founding Members

Delft University of Technology (Netherlands)

Georgia Institute of Technology (USA)

Harvard University (USA)

Hasso Plattner Institute, Potsdam (Germany)

Massachusetts Institute of Technology (USA)

McMaster University (Canada)

Tecnológico De Monterrey (Mexico)

Technical University of Munich (Germany)

University of California, Berkeley (USA)

University of California, Irvine (USA)

University of Milano-Bicocca (Italy)

University of Toronto (Canada)



Digital Credentials Consortium (DCC)

Vision

Create an education landscape that increases learner agency and promotes more equitable learning and career pathways

Mission

Create a **trusted, distributed, and shared infrastructure** that is the standard for **issuing, storing, displaying, and verifying** digital credentials



What's a Digital Credential?

- A “digital credential” — a data-based digital representation of a diploma, degree, program certificate, workshop certificate

GT Guide

Issued to: Ian Malcom

Issuer



Example University

Issuance Date

Sep 5, 2021

The holder of this credential is qualified to lead new student orientations.

Criteria

Demonstrated knowledge of key campus locations, campus services, and student organizations.

Name of credential, name of recipient, university
name, date issued, perhaps a description



Guiding Principles | Values

Learners - Commitment to learner agency and participation

- Learners retain primary control over their credentials

Issuers - Commitment to issuer control of the design of the credential

- Issuers control to whom they issue credentials, the particular achievement that the credential represents, and which credential options are available to the learner

Trust - Commitment to open processes, open standards, and software

- Credentials can be verified without consulting original issuer



How does DCC do its work?

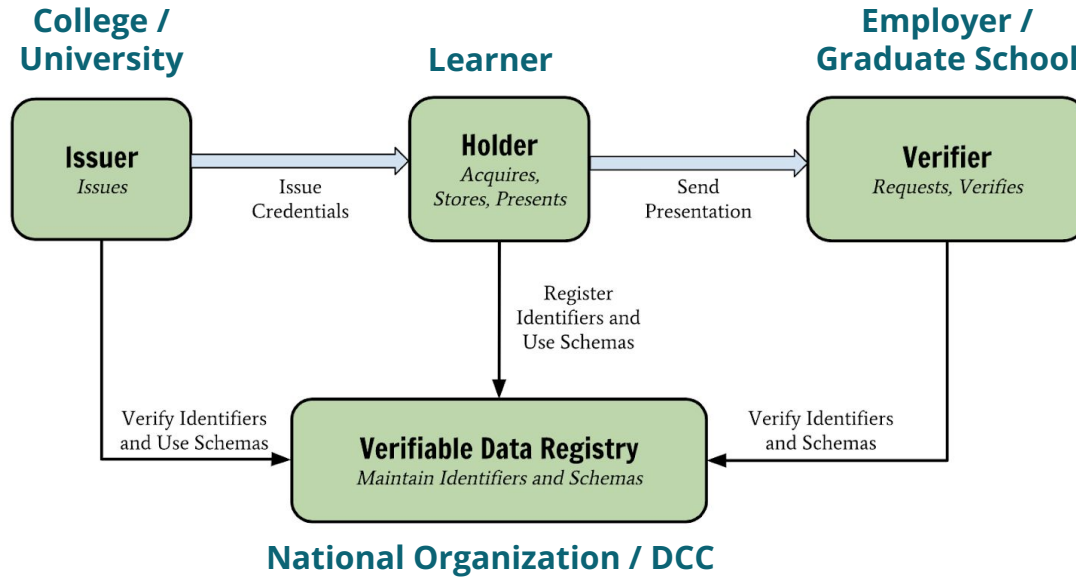
- Develops open standards, open source reference libraries, core infrastructure services
 - Co-lead W3C Verifiable Credentials for Education (W3C VC-EDU) Task Group
 - Invited expert to IMS Global on Comprehensive Learner Record and Open Badges v3 specifications
 - Connections to international efforts
 - github.com/digitalcredentials
- DCC members build tools and issue credentials
 - Supported through Technical Working Group (DCC TWG)

Verifiable Credentials



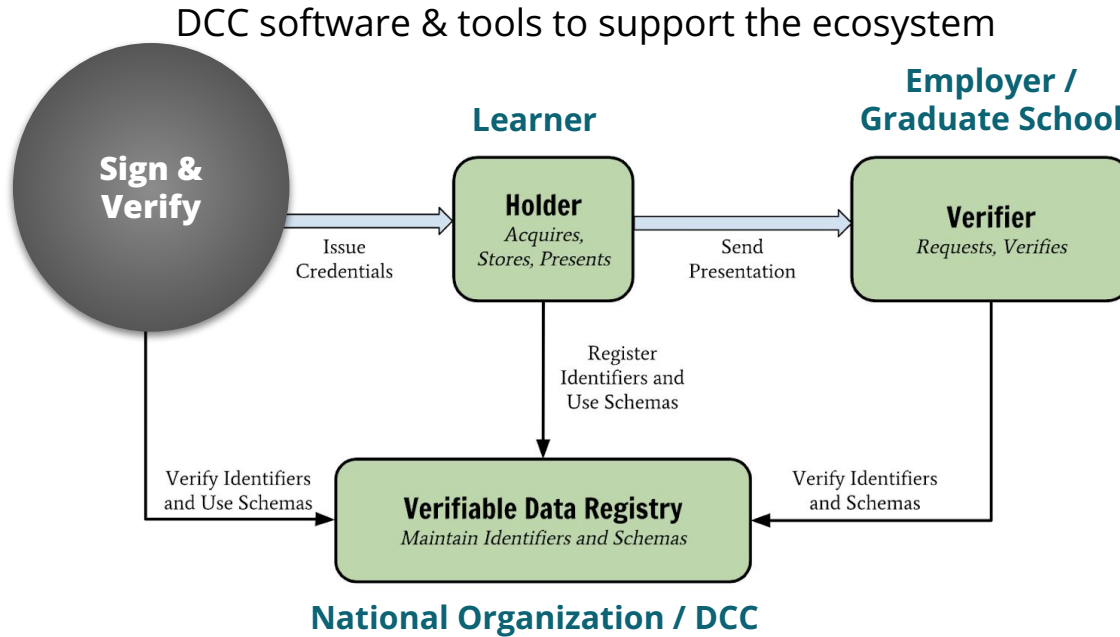
Verifiable Credentials Ecosystem

W3C Verifiable Credentials Data Model



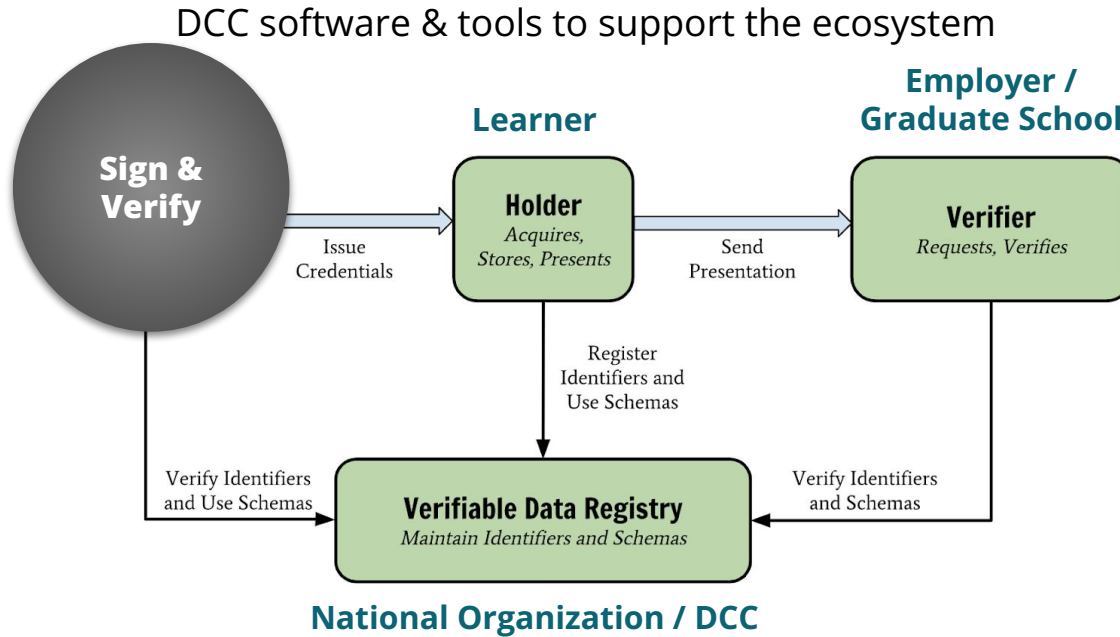
DCC Credential
Tamper-evident credential where the authorship can be cryptographically verified, that meets the technical and policy specifications adopted by the DCC.

Verifiable Credentials Ecosystem



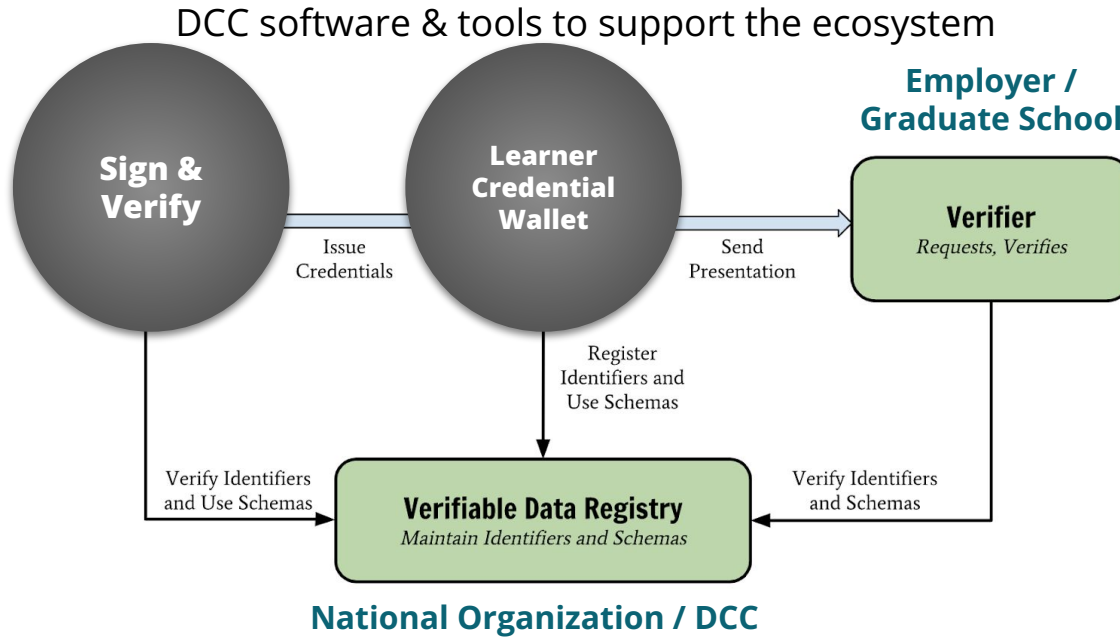
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Verifiable Credentials Ecosystem



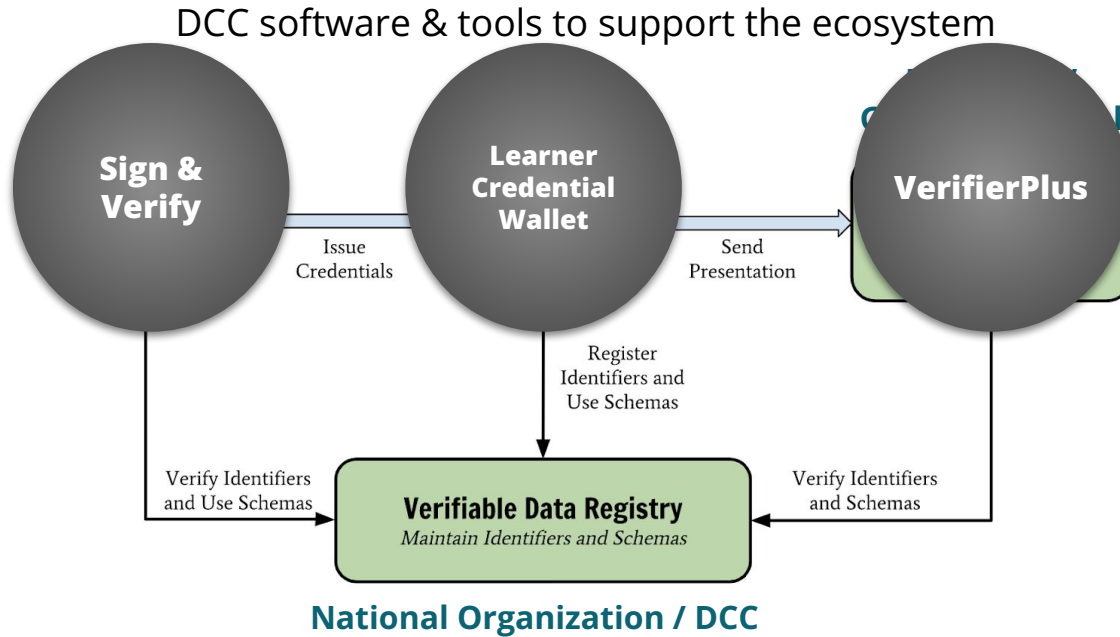
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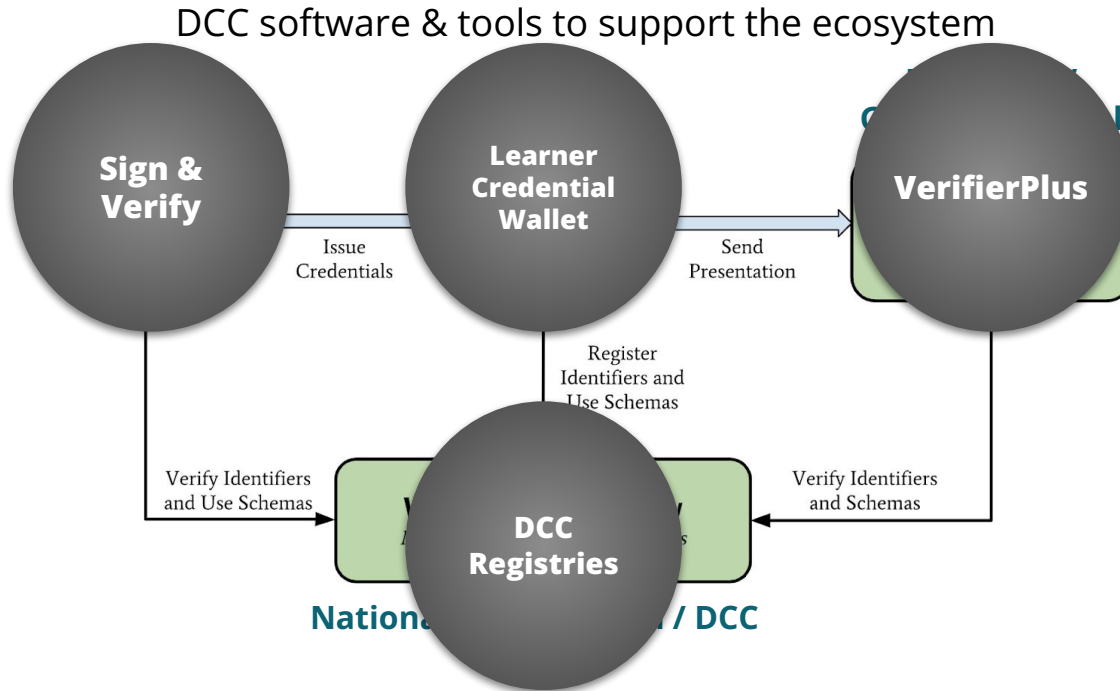
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Verifiable Credentials Ecosystem



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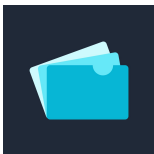
Verifiable Credentials Ecosystem



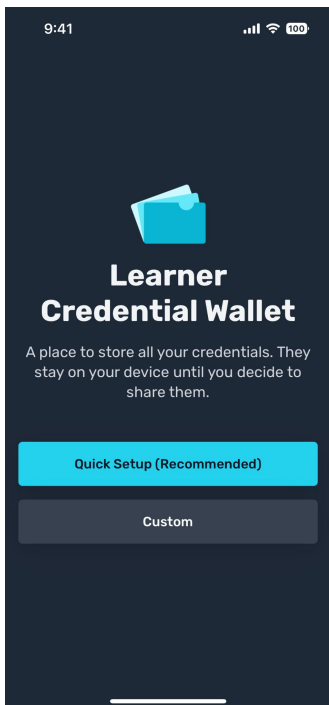
DCC Credential
Tamper-evident credential where the authorship can be cryptographically verified, that meets the technical and policy specifications adopted by the DCC.

Learner Credential Wallet

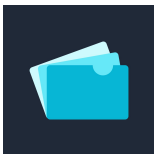




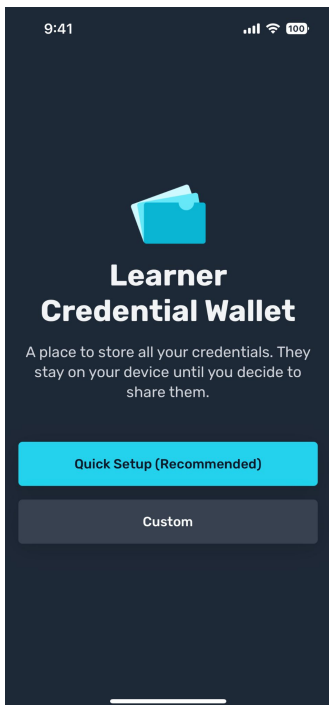
Learner Credential Wallet



- **Key component** of digital credential ecosystem
 - Prioritizes learner agency to control their own credentials and prevents lock-in
 - Establishes a reference implementation
 - Open source, freely available
- Wallet **specification** released (May 2021)
- **Open-source** code hosted on Github (Dec 2021)
- Deployment pilots with U.S. institutions
- Participant in interoperability plugfests (Jun & Nov 2022)



Learner Credential Wallet



- Both **Android** and **iOS** versions
 - Initial features complete
 - Available from lcw.app
- Key features
 - Passphrase to secure wallet, biometric support
 - Standards compliant: W3C Verifiable Credentials, Open Badges v3; VC-API
 - Add via QR code, deep link from email, web page or LTI module
 - Authenticate user before issue via OIDC call to institution Identity Provider, bearer token, SAML 2 (in progress)
 - Share credential via file, public web link, shortcut to LinkedIn
 - Multiple user profiles each with distinct identifiers



Learner Credential Wallet

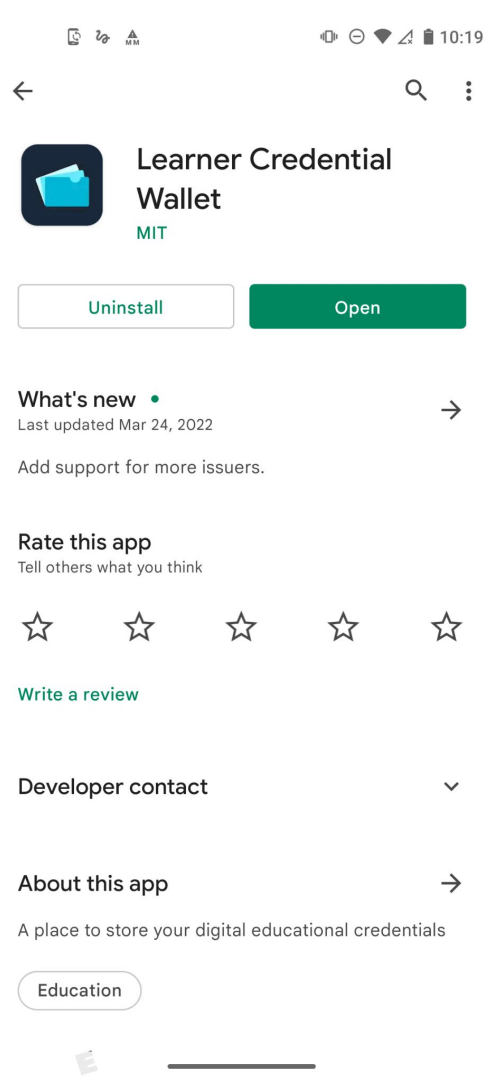
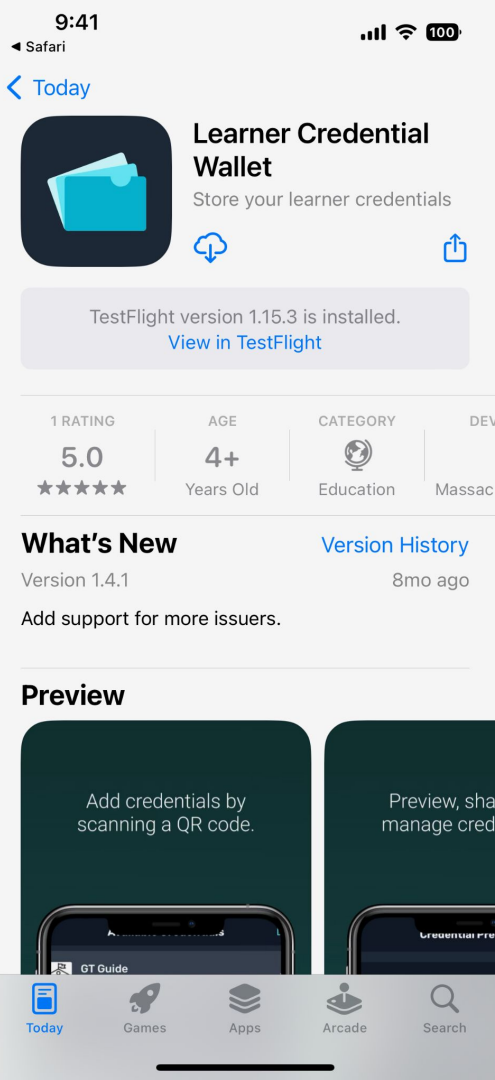
A place to store your learner credentials



Learner Credential Wallet is an [open source](#) mobile wallet developed by the [Digital Credentials Consortium](#), a network of leading international universities designing an open infrastructure for academic credentials.

Learn more about the [2022 Learner Credential Pilot](#)

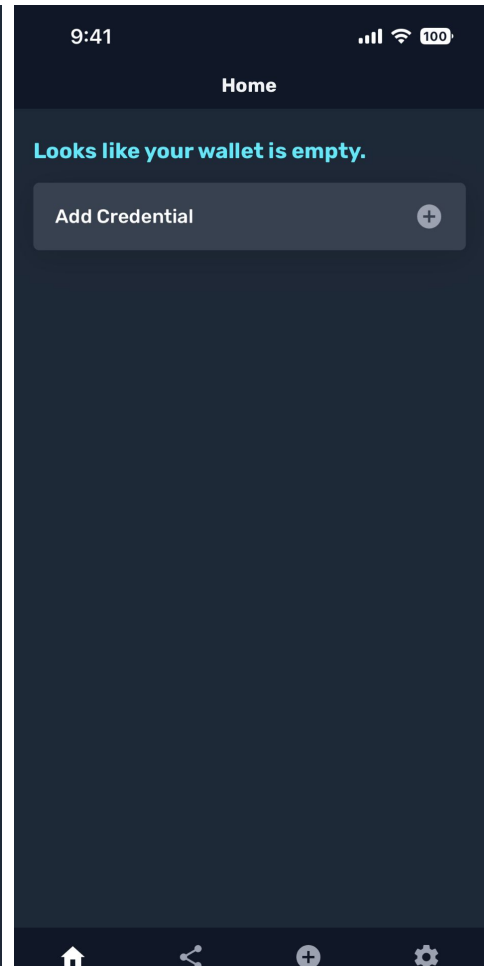
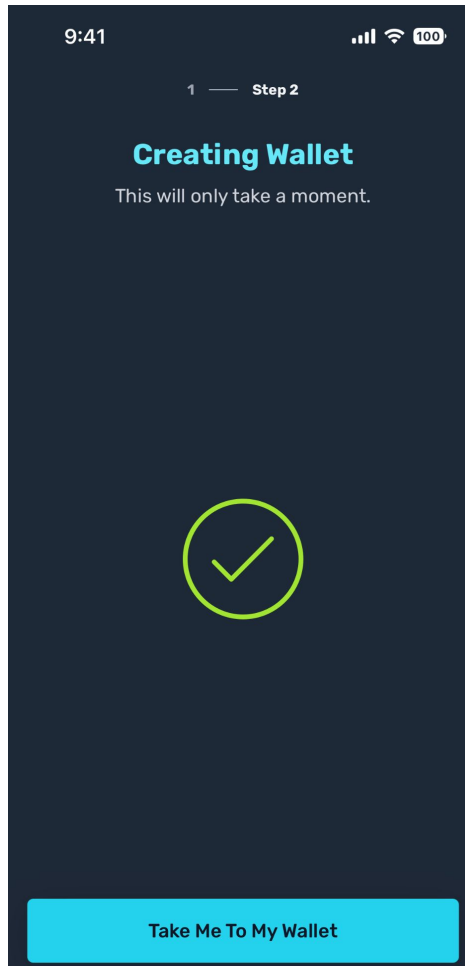
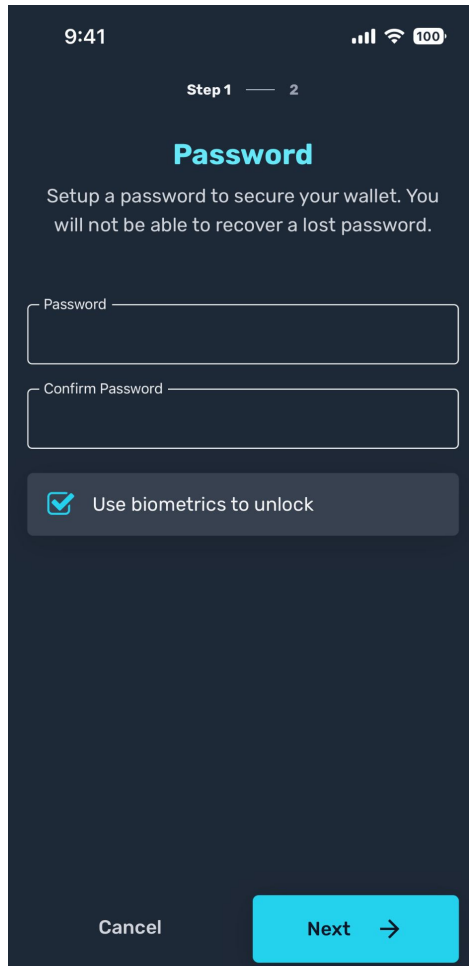
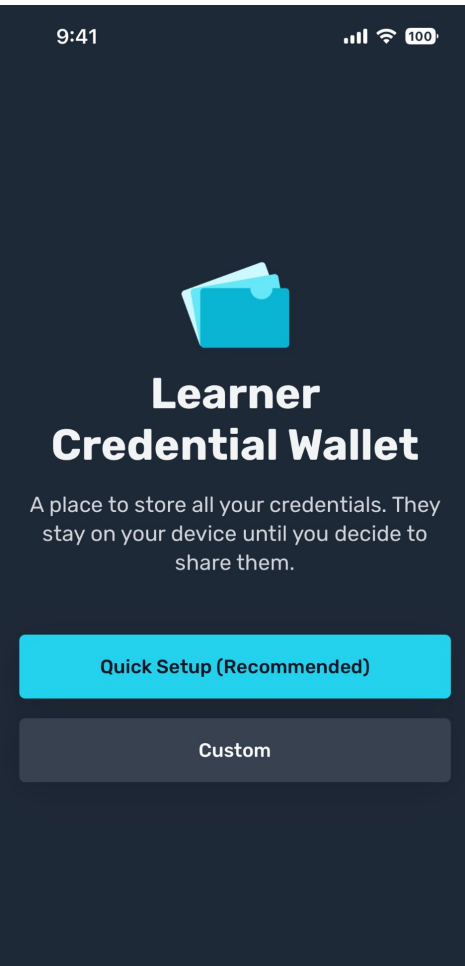
[Frequently Asked Questions](#)



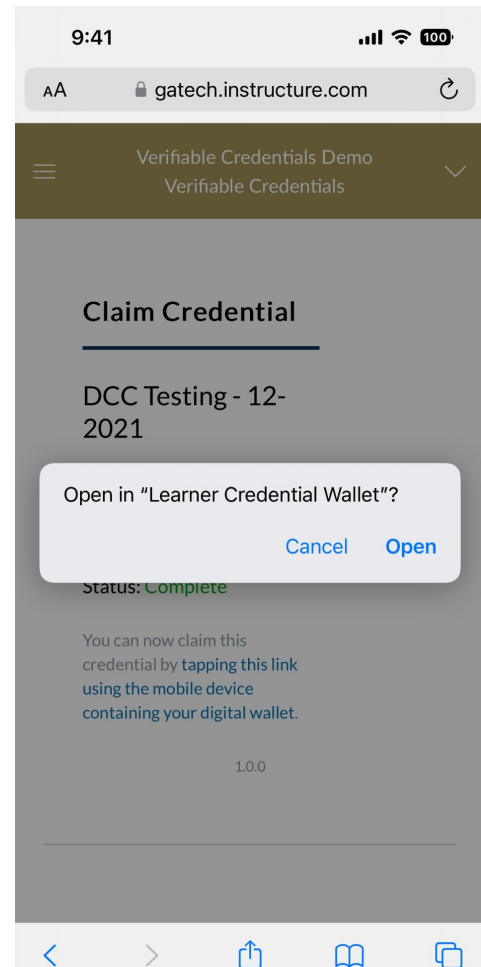
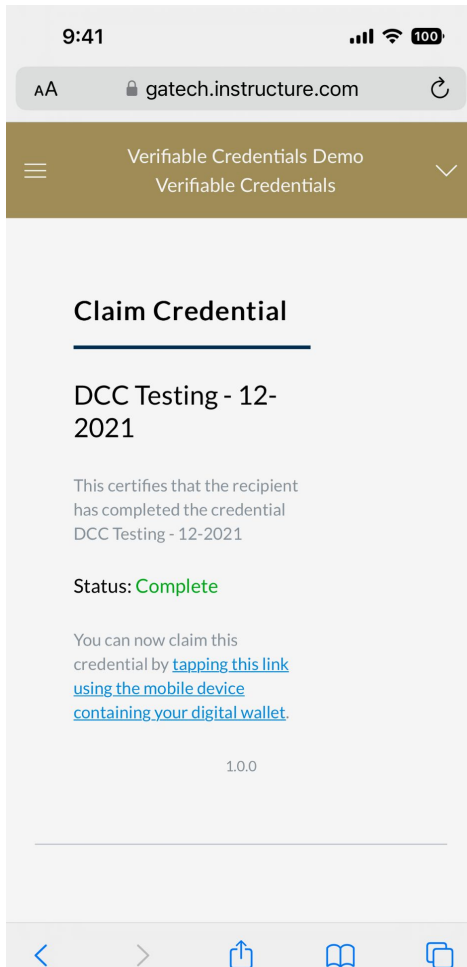
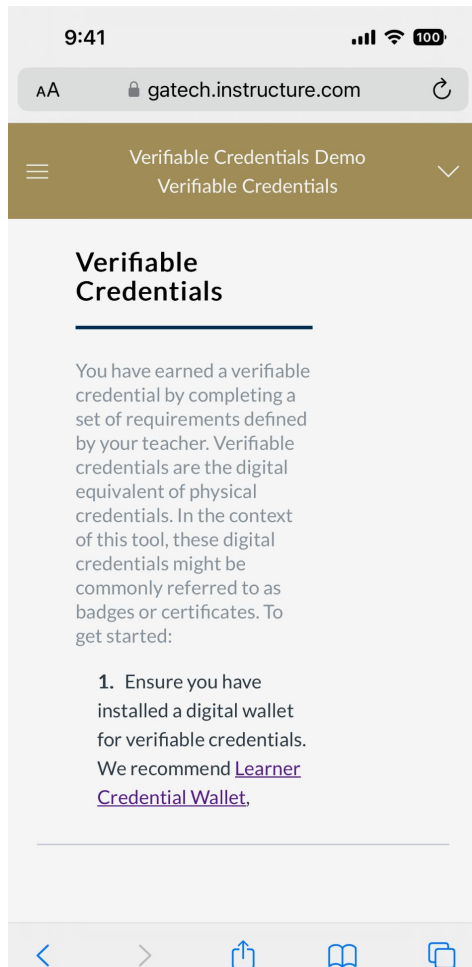


Live demo of Learner Credential Wallet

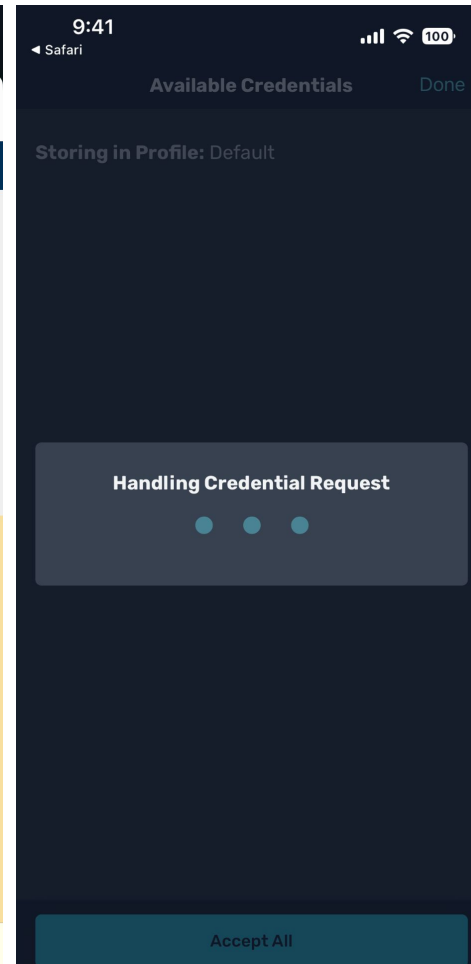
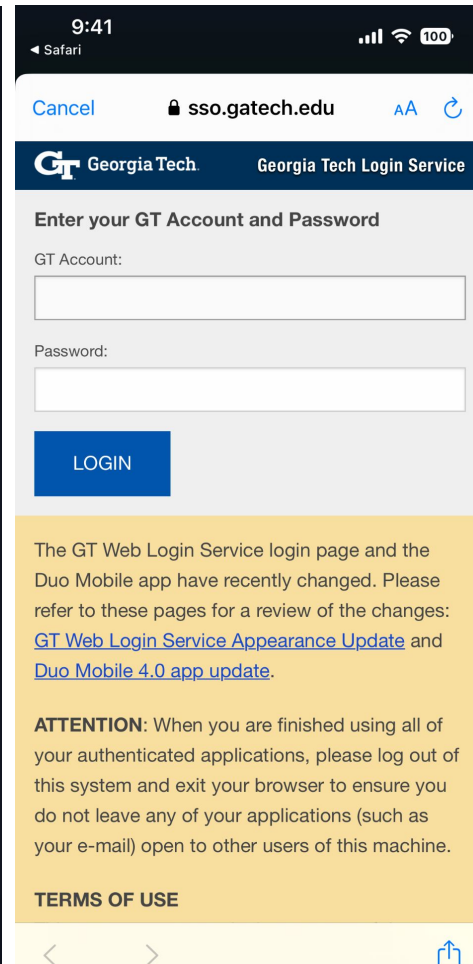
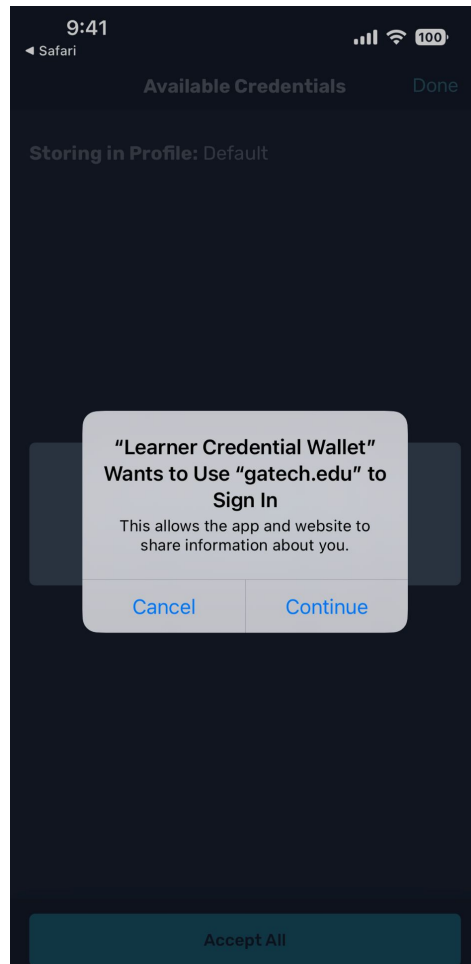
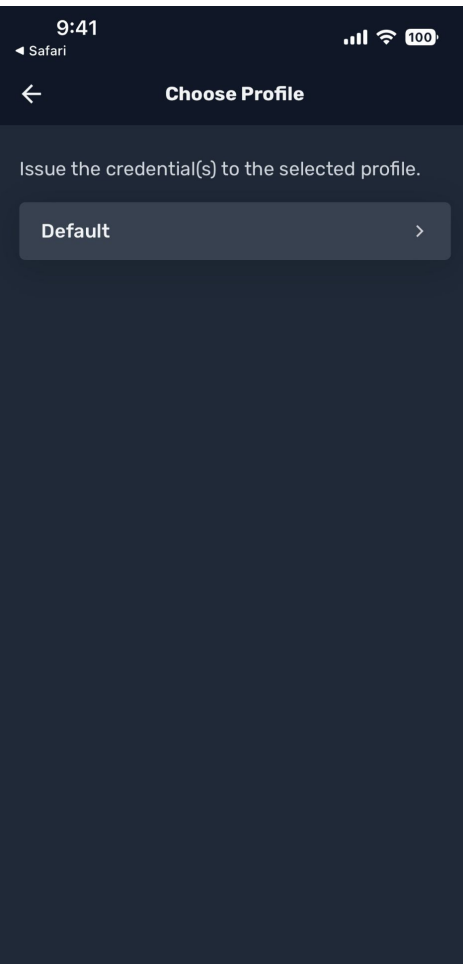
Adding a Credential from the Canvas Learning Management System



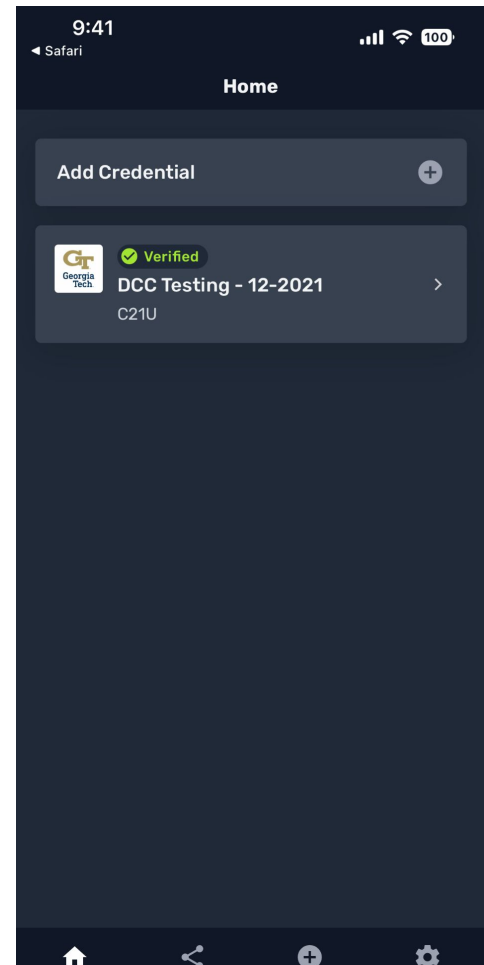
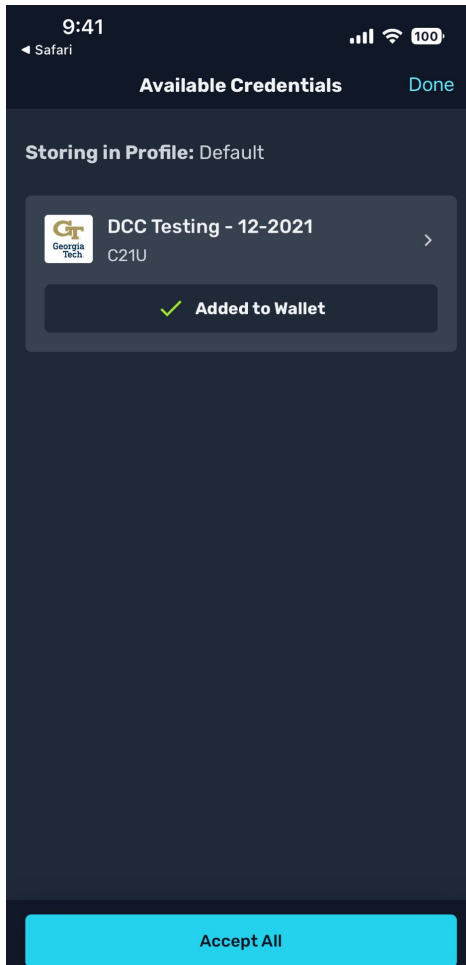
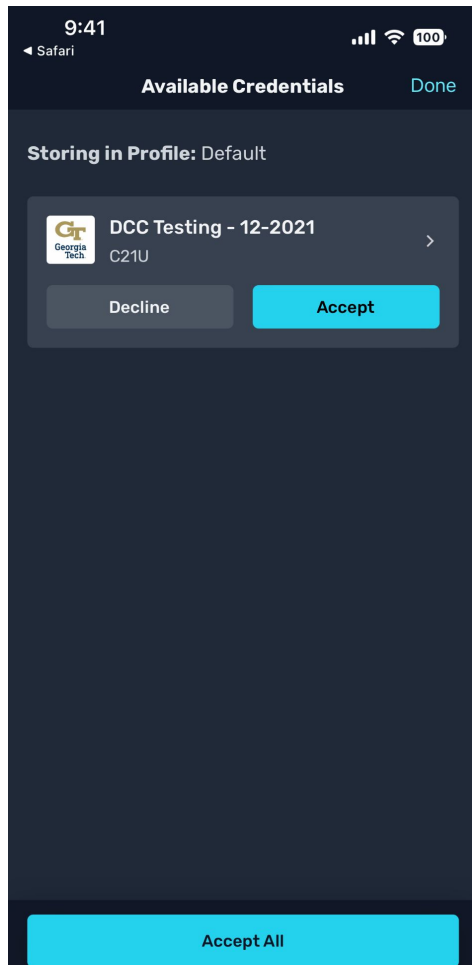
Install and setup Learner Credential Wallet



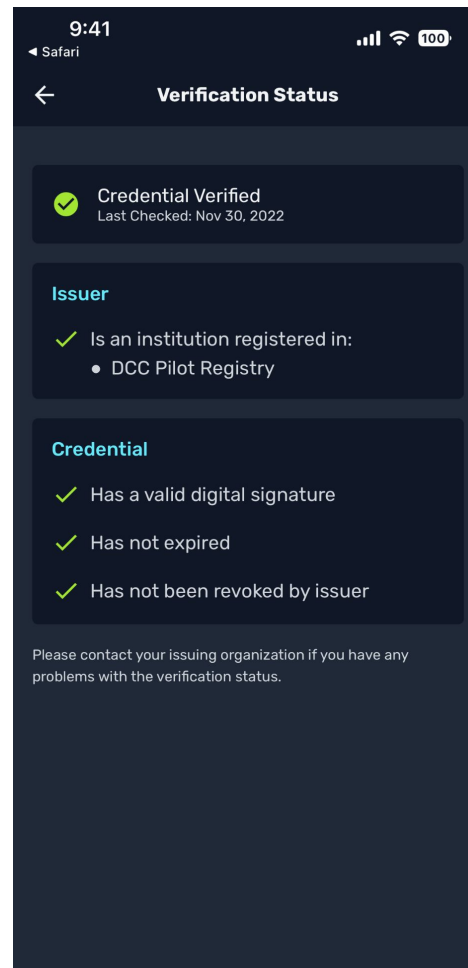
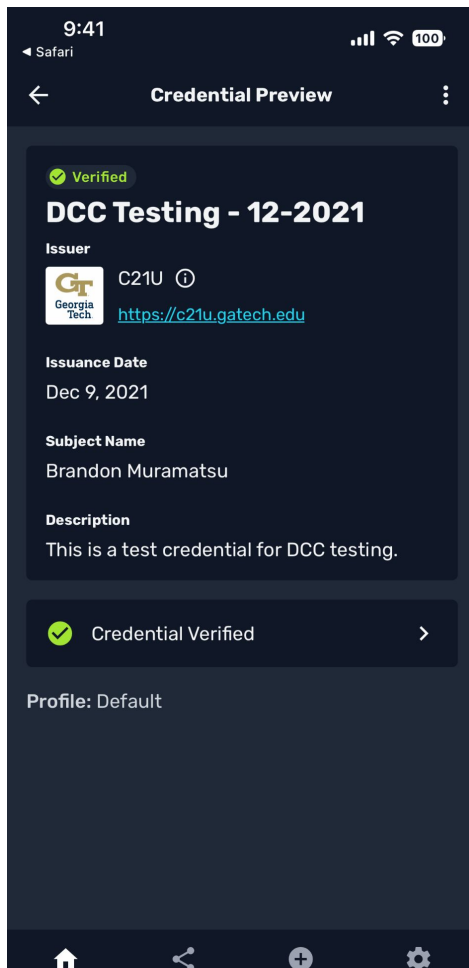
Request Credential from Learning Management System



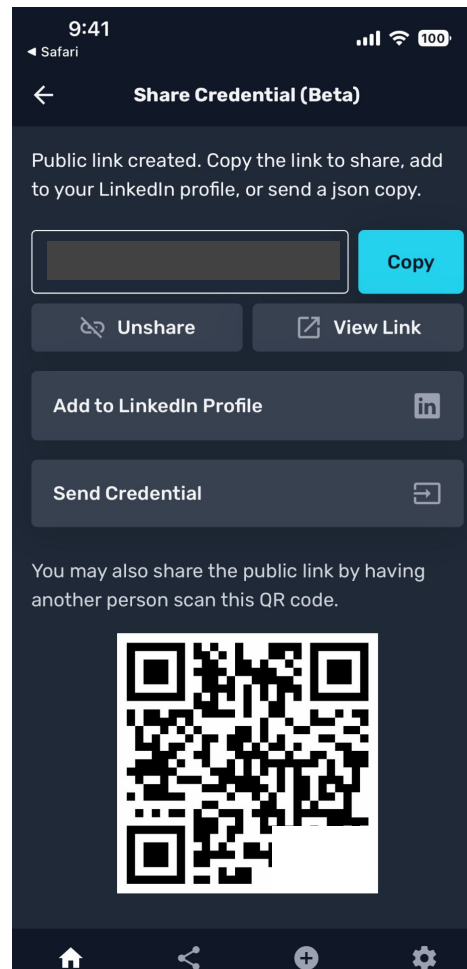
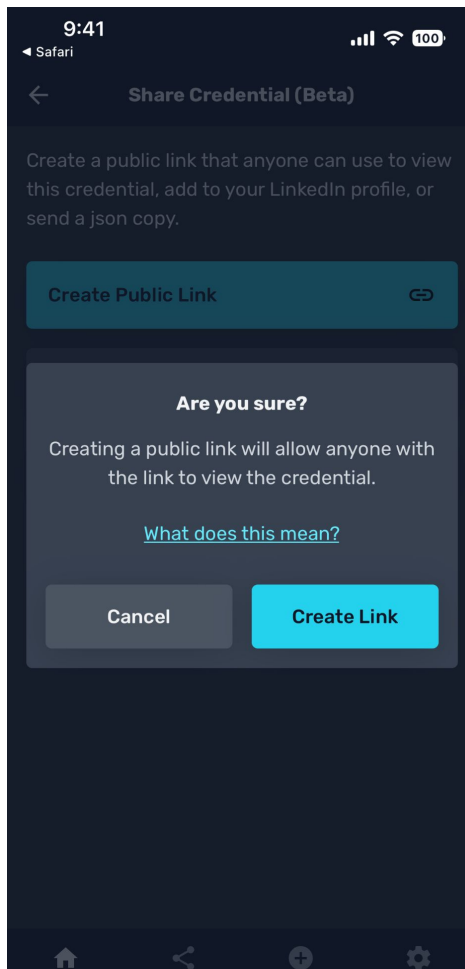
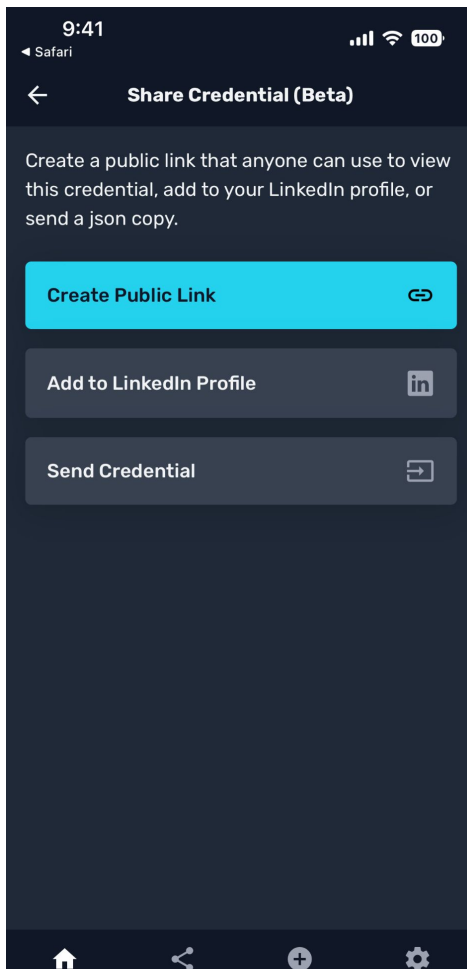
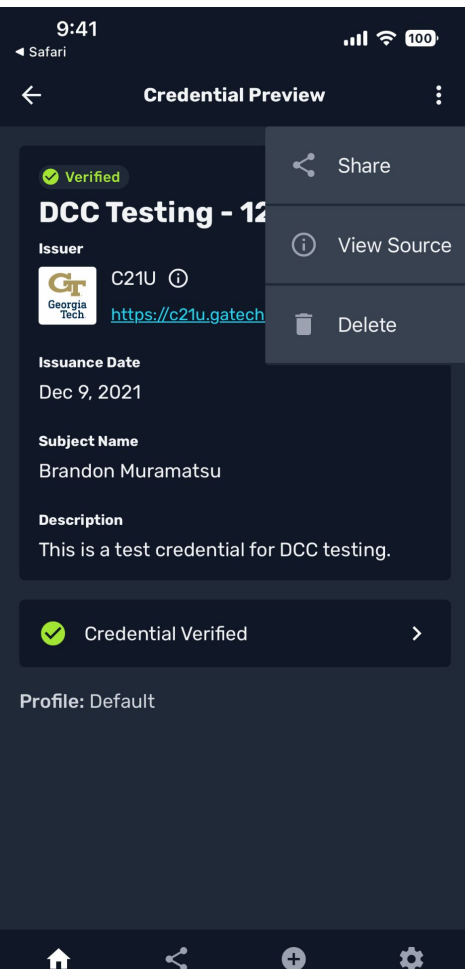
Select a Profile, Authenticate to Receive Credential



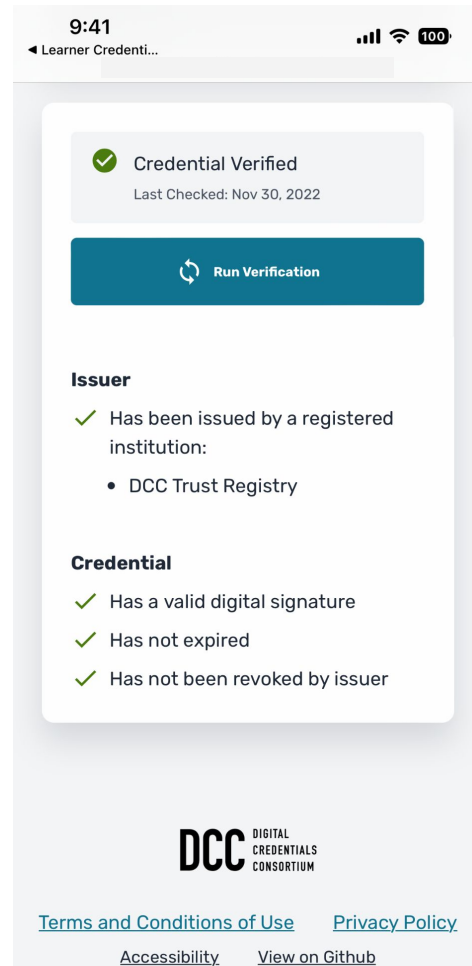
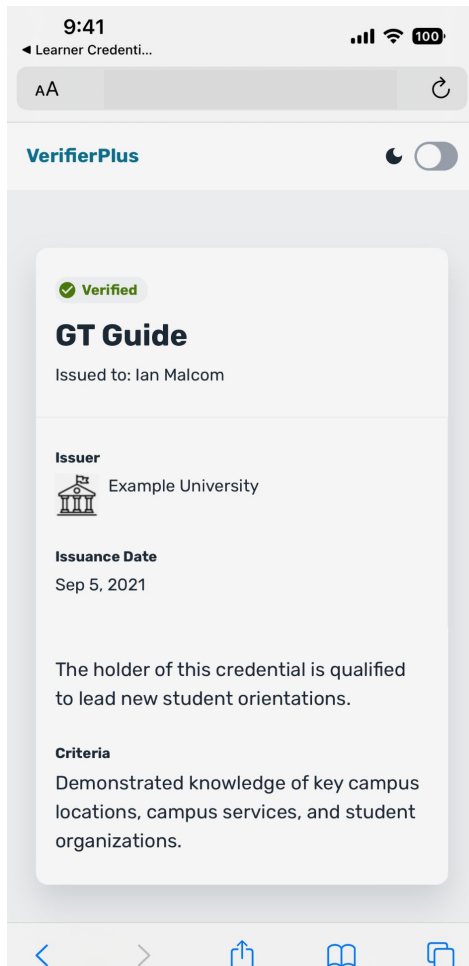
Accept Credential, Add to Wallet, View on Wallet Home Screen



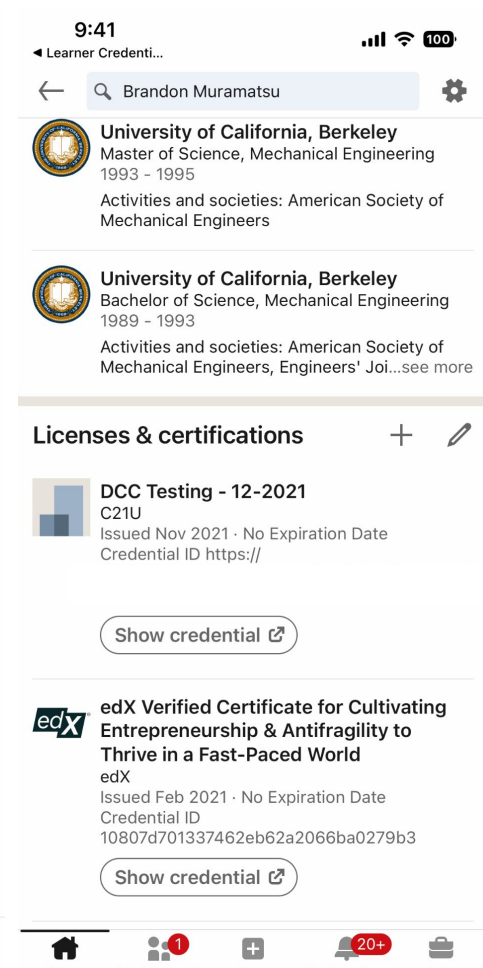
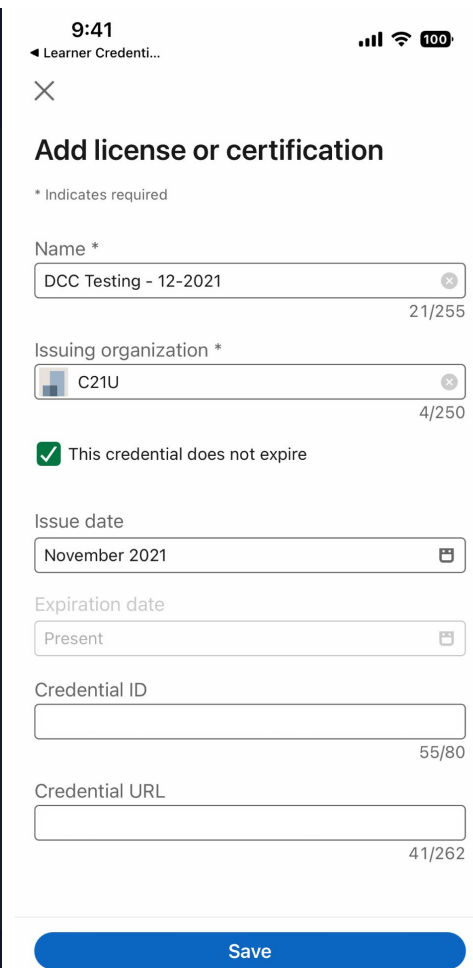
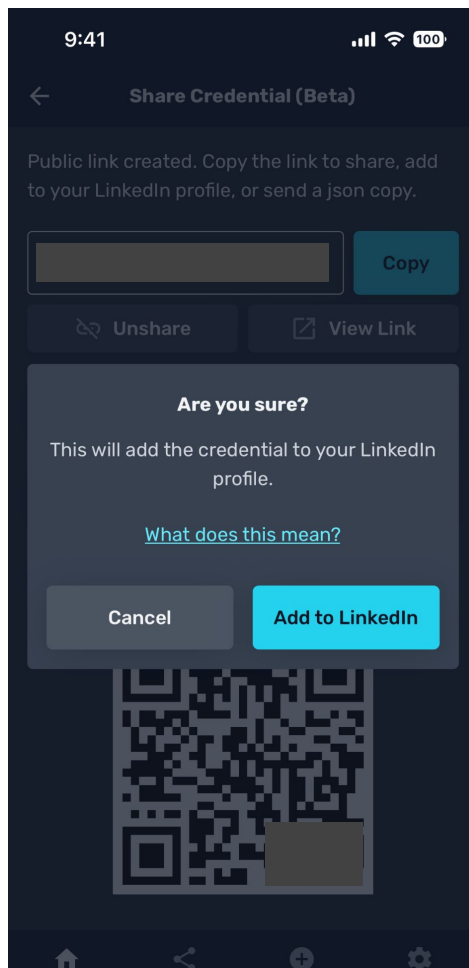
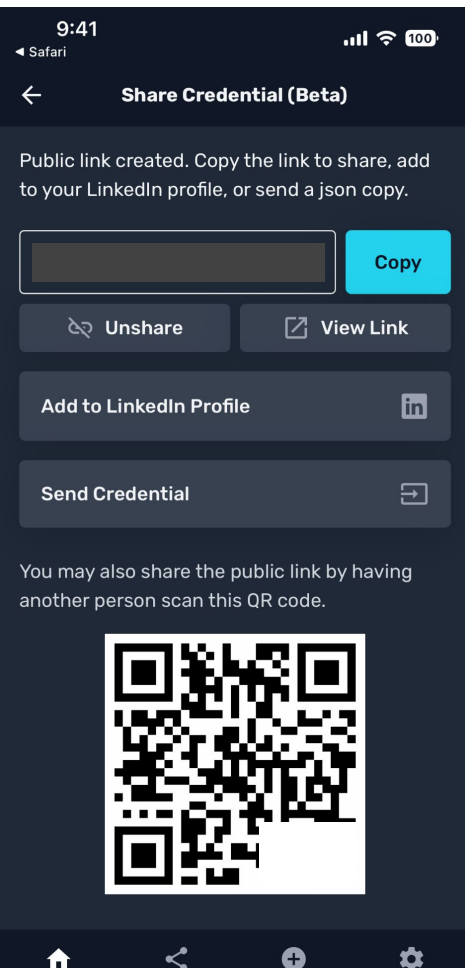
Credential Preview, Verification Status



Share Credential, Create Public Link



View Shared Public Credential, Verification



Add to LinkedIn Profile

Questions?

Brandon Muramatsu, mura@mit.edu

