# The evolution and future of biometric credit cards



The evolution of credit cards, from Frank McNamara's Diners Club Card in 1950 to the array of payment technologies available today, continuously adapts to changing consumer needs and growing security concerns. As of 2023, over 190 million adults in the United States possess credit cards, as reported by the Consumer Financial Protection Bureau. This dramatic increase highlights the shifting landscape of payment methods that now incorporates advanced security measures, including microchips embedded within cards, artificial intelligence, and machine learning technologies aimed at combating credit card fraud.

Historically, credit card security began with simple signature verification but now utilises an extensive array of protective features, such as biometric technology. This includes user fingerprint or facial recognition to ensure that transactions are secured and that owners are accurately verified. The potential integration of biometric features into credit cards has raised discussions among experts about their adoption in the near future, particularly around the year 2025.

Biometrics, which analyse an individual’s biological traits to confirm identity, are already prevalent in various industries and applications, including airport security and mobile devices. The implementation of such technology in credit cards is seen as a logical progression in the ongoing effort to enhance payment security. Visa is already on the forefront, with Mark Nelsen, the Global Head of Consumer Payments, stating that they are working diligently on biometric initiatives, specifically the Visa Payment Passkey, to revolutionise the digital payment experience.

Biometric credit cards are not a brand-new concept; their origins can be traced back over a decade. Previous models faced significant hurdles with functionality and manufacturing costs. Nelsen explained that earlier iterations required battery power that made them cumbersome and too expensive for widespread consumer use. However, advancements now allow for these cards to charge via card readers, eliminating the need for an attached battery, making the prospect of usability much more enticing.

Despite the advanced technology, the prevalence of physical credit card fraud has diminished significantly, thanks largely to the introduction of EMV chip technology, which has reduced counterfeit fraud by 76%. A substantial proportion of fraudulent transactions occurs while the card is still held by its rightful owner, leading to a conclusion that biometric solutions may be more niche in nature, suited for those particularly concerned with security.

Security expert Adam Levin expressed enthusiasm for the adoption of biometric technology within credit cards, advocating that more layers of security are beneficial. Although biometric cards are technically available now, there's uncertainty over when they might achieve broader acceptance, especially in the United States. Countries like Canada and the UK have heard discussions around regulations that could support higher adoption rates, especially due to existing limits on contactless payments that could be surpassed with biometric confirmation.

The current landscape in the US paints a picture of physical cards remaining a critical component of transaction processes. Mark Nelsen stated that a shift to digital payments does not signal the immediate end for plastic cards, as infrastructure has been built around their usage. There is an expectation that digital wallets and other card-less trends will likely expand, yet experts concur that the physical credit card will not vanish overnight.

For those interested in the future of payment security, the opportunity to request biometric credit cards through banks, such as those offered by Visa and partnerships they maintain with manufacturers, exists. Although adoption may be gradual, the ongoing evolution of credit technologies hints at a more secure and streamlined future for payment methods.

Source: [Noah Wire Services](https://www.noahwire.com)

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