

SWIFT Institute 2021 Wrap Up: Bridging the Gap between the Financial Industry and Academia.

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Opening Letter

from **Matthew Loos**



As we enter 2022 with great optimism for the New Year, the key global challenges: the pandemic, the climate crisis and global supply chain resilience continue to dominate the international debate.

Glancing back at the last 12 months we have observed, continuing changing consumer behaviours in particular with regards to the adoption of new payment methods, the acceleration of all things digital – including assets, and the application of innovative technologies across the financial industry and e-commerce ecosystem. The cyber threat, operational scale, agility and efficiency are all key battles for actors within the financial ecosystem, combined with the need to adapt and innovate within our new ‘be ready for anything’ environment.

Over 2021, the SWIFT Institute has either published or issued grants for research across areas such as Financial Crime Compliance in particular Transaction Monitoring techniques, CBDCs and international Payments, Open banking-API connectivity and Fintech Innovation, Digital assets and Tokenised Trading, and last but not least Cyber security, from both a practical (Toolbox) and a research perspective.

These have been and continue to be intense and challenging times for all participants across the industry and the SWIFT Institute continues to sponsor research and facilitate debate around key topics of relevance to the community.

For the second consecutive year, Sibos successfully delivered an enhanced all-digital event, examining the theme of Recharging Global Finance through digital acceleration, transformative technology, managing risk and banking on change. The SWIFT Institute’s Sibos Academy invited a multitude of reputed academics to the table to debate and share insights on topics such as Digital Identity, the Digital Future, Sustainable Finance and Transformative Technology. Providing the knowledge to prepare attendees for their Sibos journey.

The annual Student Challenge competition now in its 6th year, invited students across India to the Sibos stage to address the question of “how can the Indian financial community increase the adoption and use of digital trade transactions to reduce and/or eliminate paper-based trade?”

Furthermore, SWIFT and the SWIFT Institute continue to be proud members of the Ethics & Trust in Finance Prize, which finalised its 8th edition in 2021. The Prize is a project of the [Observatoire de la Finance](#) (Geneva), a non-profit foundation that aims to raise awareness around the relationship between the ethos of financial activities and its impact on society. The 2021 first prize went to Mrs Julie Segal, Impact Investment Analyst at the J.W. McConnell Foundation, for her essay on “Lessons in environmental justice for sustainable finance: pricing in the physical risks of climate change”.

SWIFT’s Mohammed Shallo, CX Transformation Manager, was a nominee for the prize with his co-authored entry: “Service to Others: integrating social, environmental, and ethical considerations in the financial industry. A call to Action.”

Analytical systems have become critically important to industry technical innovation. In recognition of this, SWIFT and the SWIFT Institute are excited to have

joined the Centre for Research toward Advancing Financial Technologies (CRAFT), an initiative born from an alliance between the Stevens Institute of Technology and Rensselaer Polytechnic Institute, co-sponsored by the National Science Foundation (NSF).

Looking forwards to 2022, the SWIFT Institute line-up for planned publications, includes two new research papers addressing CBDCs and the Impact on International Payments and the Trading of Tokenized Assets: Modern Exchange Market Infrastructure.

Our new research grants for 2022 can be expected to drill down into themes addressing the frictions in cross border payments, and industry challenges in the Securities post-trade segment.

We look forward to engaging with you as we explore new media and forums of debate, to share and exchange insights fundamental to the financial industry and the adoption of innovative technologies and models for change.

Stay tuned for the 2022 Q1 SWIFT Institute quarterly update!

Matthew Loos
Director, The SWIFT Institute

Published Research Papers in 2021

The Future of Transaction Monitoring

Authored by Matthew R. Redhead, Associate Fellow at the Royal United Services Institute (RUSI), the report analyses the scale of investment in transaction monitoring, the balance between costs and benefits and the overall effectiveness of the suspicious transaction-reporting regime.

It explores industry initiatives for innovation and reform and provides a set of recommendations to both address existing pain points and to provide potential alternatives and a glance to the future towards the prospect of systemic monitoring.

Visit our [research page](#) for a brief summary of the research or the full paper.



[View paper](#)



FFIS Case studies on the use of privacy preserving analysis to tackle financial crime

A discussion paper by Nick Maxwell of Future of Financial Intelligence Sharing (FFIS) which provides an overview of developments in the field of privacy preserving analytics and contains ten case studies of how this technology is being used to tackle financial crime. These case studies demonstrate how financial institutions are exploring and exploiting advances in this field of cryptographic technology.

The paper is part of a multi-year international study into “The Role of Privacy Preserving Data Analytics in the Detection and Prevention of Financial Crime” led by FFIS, which is affiliated with the RUSI Centre for Financial Crime & Security Studies. The study is an independent research programme supported by the SWIFT Institute.



[View paper](#)



Open banking as a catalyst for industry transformation

Authored by Professor Pinar Ozcan, University of Oxford and Professor Markos Zachariadis, University of Manchester, the paper builds on a previous assessment of the API economy in banking.

Over the years, open banking has been described by both regulators and practitioners as a catalyst for reinvention in the banking sector. By redefining the ownership and therefore data-sharing rights, open banking and PSD2 regulations put the customer at the centre while lowering the barrier to entry into the financial sector.

The report explores the strategic importance of open banking and takes the reader on a journey through the rise of neo-banks and fintechs, the initial incumbent bank responses to the new regulations, and how ultimately, banks learned to take advantage of this opportunity.

Culminating with a view to the future, the study identifies the need for regulatory attention to prevent a new form of intermediation and potentially monopolistic behaviour.



[View report](#)



An updated Cyber-security Toolbox

The SWIFT Institute continues to partner with the Carnegie Endowment for International Peace to help financial institutions enhance their cyber security. Cyber Resilience and Financial Organizations: A Capacity-building Toolbox, consists of easy-to-use guides and checklists that provide senior management at financial institutions with actionable measures to improve their organisation's cyber security. Originally published in 2018, this Toolbox was designed to be a "living project" to be reviewed and updated regularly in response to the ever-changing nature of cyberattacks.

The latest update included guides and checklists for Workforce and Ransomware as well as the translation of the full suite of the Toolbox into three additional languages: Mandarin, Hindi and Japanese.

The ToolBox is available 10 languages and is based on existing frameworks, policies, and standards from around the globe (including SWIFT's Customer Security Programme). It has been designed primarily for less cyber-mature and smaller organisations, many of whom tend to be constrained by fewer resources and often less experience.



Cyber Security Case studies in an African Context

The SWIFT Institute partnered with the Global Business School Network (GBSN) to produce two case studies examining cybersecurity and banking across the African and East African region. Led by the United States International University in Kenya the studies have provided a valuable insight into the current cyber-risk landscape.

The first case study identifies key cybersecurity risks and assesses risk quantification and minimisation practices in the banking industry. It highlights the African experience, providing mitigating measures and strategies to help reduce cybersecurity risk in emerging areas of concern for African financial institutions.

The second case study assesses the cybersecurity risks stemming from discrepancies between policy development and technological advances in the banking industry, with a particular focus on the East African region.



Highlights from Sibos 2021



Sibos Academy 2021 delivered by the SWIFT Institute

In support of the principal theme of Sibos 2021: Recharging Global Finance through digital acceleration, transformative technology, managing risk and banking on change.

The SWIFT Institute's Sibos Academy invited a multitude of reputed academics to the table to debate and share insights on topics such as Digital Identity, the Digital Future, Sustainable Finance and Transformative Technology. Providing the foundational knowledge and awareness to prepare attendees for their Sibos journey.

From the many Sibos Academy sessions of 2021 we have selected key take-aways from a few of the debates.

Digital Identity: balancing between convenience and trust

From a banks' perspective digital ID can improve risk management through a more streamlined e-KYC process resulting in better fraud management. There are, however, many challenges to address such as ownership, control, multi-jurisdictional validity and the omnipresent risk of cyber theft.

Moderated by Brad Carr, Managing Director of Digital Finance at the Institute of International Finance, the panel discussion shed light on some of the financial industry achievements based around the understanding that digital identity is central to the evolving digital economy, while from a wider societal perspective there must be a recognition that developments in digital identity initiatives must be fully inclusive, and not limited to 'online' modes of technology, or one controlling institution.

Sopnendu Mohanty, Chief FinTech Officer for the Monetary Authority of Singapore, shared that Singapore's foundational digital infrastructure comprises of 4 elements: the trusted digital identity, a trusted data exchange platform, a highly interoperable payment system, and a data consent system. For example, SingPass is the national digital identity which Singaporeans can use to transact digitally with both the government and the private sector.

Introduction to Banking on Change: What is Sustainable Finance?

In support of the Banking on Change stream, the Sibos Academy kicked off the learnings around ESG, which in full incorporates the Environment, Sustainability and Governance.

Dr. Alinettes Adique of the Global Reporting Institute and Sherry Madera, Chief Industry & Government Affairs Officer, London Stock Exchange Group gave an introduction to Banking on Change: What is Sustainable Finance?

The discussion opened with a view on the Sustainability Development Goals, adopted in 2015 by world leaders at the UN to end poverty, fight inequality and tackle climate change by 2030. The SDG's call for action by all countries and all stakeholders. This however is the precise challenge. How can business and governments take action, and how can they track their progress in advancing the SDGs?

Transitioning towards a sustainable economy requires the participation of multiple actors, whether through government, enabling a conducive policy environment for the private sector to contribute to sustainable development, through the financial sector by deploying capital to sustainable businesses and activities, or through businesses, by implementing strategies aligned to SDGs to enable long term growth.

A key tool for tracking the transition towards greater sustainability is sustainability reporting, often incorporating ESG credentials, however ESG reporting still has a way to go and the diversity of ESG standards and formats is a recognised challenge.

Several groups are looking to address these standardisation challenges, whether from a climate-related perspective such as the Task Force on Climate-Related Financial Disclosures (TCFD), or from a finance perspective such as the Financial Stability Board, and the International Financial Reporting Standards (IFRS) - which is looking to create disclosure standards and align them with an accounting standard. However, data availability is not enough to plot a course for decarbonisation. More definitional granularity is needed to enable like-for-like evaluations of one company, or one sector, against another.

Introduction to Transformative Technology and Getting the Human Angle Right

In support of the Transformative Technology stream Vasant Dhar, Professor, NYU Stern School of Business & Center for Data Science initiated the learnings with a full view on the transformative technologies impacting society such as artificial intelligence, digital platforms, scalable processes and blockchain.

Tackling the 'human' angle the discussion centred around the strengths of consistency in machines for decision making, yet their confusion on 'edge cases' whereby inconclusive or 'noisy' information creates an unclear picture, an area where human decision making is superior. Applying this to AI in finance and process redesign, whereby the role of AI/machine learning is to make decisions systematic, Professor Dhar highlighted the importance of human-decision making for non-linear 'edge cases', the challenge however, is to recognize these edge cases. Diving into the platform service providers and the various roles they perform looking to the future the key question is whether platforms will 'become' or power the "complete FinTech platforms" of the future? Moving on to cryptocurrencies and Defi, or decentralized finance, clear questions remain as to the suitability and applicability of existing regulatory frameworks. A key question to address is how to translate the trust, security and authority that we currently enjoy in centralized systems into decentralized systems. The global regulatory challenge is significant given the lightning-fast pace of change relative to previous technologies, and the considerable risks to the financial system.

SWIFT Institute Student Challenge 2021

The SWIFT Institute conducted the Student Challenge India by collaborating with the local banking community on topics of concern to them

The challenge for 2021 was “How can the Indian financial community increase the adoption and use of digital trade transactions to reduce and/or eliminate paper-based trade?”

The Student Challenge India was open to five institutes in India:

- Prin. L. N. Welingkar Institute of Management Development and Research
- Jagdish Sheth School of Management JAGSOM (Formerly IFIM)
- K. J. Somaiya Institute of Management, NMIMS University, Mumbai
- Narsee Monjee Institute of Management Studies (NMIMS)
- S.P. Jain Institute of Management and Research (SPJIMR).

Winners were chosen by a select panel of judges from the Indian banking community, and announced on Sibos TV by Kiran Shetty, CEO & Regional Head India & South Asia SWIFT. Team Phoenix, from Prin. L. N. Welingkar Institute of Management Development and Research, were awarded the SWIFT Institute Student Challenge Prize for 2021 with their proposal that integrates CORDA a permissioned blockchain that supports smart contracts and IPFS a protocol and peer-to-peer network in the contract processing lifecycle to eliminate paper.

Congratulations to Team Phoenix:

Priyanka Wadhwa, Mansi Sawant, Kishor Toshniwal, Nikhita Attavar, Neelam Pradhan, Rohan Bhor, Shantanu Jaykar, Mayur Shirke.

Watch out for the SWIFT Institute Student Challenge 2022, which will be launched in March 2022 and will invite candidates from Latin American Universities and Business Schools to step up to this years’ topical challenge.

Stay tuned for our Q1 edition of the SWIFT Institute Newsletter with further insights around our 2022 research publications and new research call for proposals!

**The SWIFT Institute,
set up by SWIFT,
funds independent
research, supports
knowledge-led
debate and provides
a forum where
academics and
financial practitioners
can learn from each
other.**