Fintech and Artificial Intelligence in Finance – COST CA19130

Who are we?

The financial sector is the largest user of digital technologies and a major driver in the digital transformation of the economy. Financial technology (FinTech) aims to both compete with and support the established financial industry in the delivery of financial services. Globally, more than $100 billion of investments have been made into FinTech companies and Artificial Intelligence (AI) since 2010, and continue growing substantially. In early 2018, the European Commission unveiled (a) their action plan for a more competitive and innovative financial market and (b) an initiative on AI with the aim to harness the opportunities presented by technology-enabled innovations. Europe should become a global hub for FinTech, with the economy being able to benefit from the European Single Market.

JOIN US!

Members from **33 EU countries and 5 Partner countries**

Over 150 individual members

Montly events
- **Virtual**
- **Hybrid**
- **In person**

What are our objectives?

The Action will investigate AI and Fintech from three different angles: Transparency in FinTech, Transparent versus Black Box Decision-Support Models in the Financial Industry, and Transparency into Investment Product Performance for Clients. The Action will bridge the gap between academia, industry, the public, and governmental organizations by working in an interdisciplinary way across Europe and focusing on innovation.

O1

The action asimes to improve transparency of AI supported processes in the Fintech space

Join and contribute!

O2

The action aimes to address the disparity between the proliferation in AI models within the financial industry for risk assessment and decision-making, and the limited insight the public has in its consequences by developing policy papers and methods to increase transparency

O3

The action aimes to develop methods to scrutinize the quality of products, especially rule-based "smart beta" ones, across the asset management, banking and insurance industries.

How do we do it?

WG1

WG2

WG3

WG1 – Transparency in FinTech

Working group WG1 stimulates discussion and awareness of transparency of Fintech applications. Modern Machine Learning, Blockchain analytics and Big Data Mining are in the focus of WG1 with the aim to propose transparent implementable solutions.

Fintech benefits are seen in reducing asymmetries of information and in improving efficiency but these can be hampered by poor applicability of computer generated mechanics. WG1 solutions provide signals for increased risks, generated by e.g. sampling biases, risk of fraud.

WG2 – Transparent versus Black Box Decision-Support Models in the Financial Industry

Regulators need to ensure the transparency of rules and criteria used to judge the admissibility of decision algorithms employed by financial institutions, to avoid possible negative impact on the industry such as discrimination among market players. Thus, it is important that regulators and policy-makers have conceptual tools and research at their disposal to make quick and motivated decisions on how to regulate the use of data science techniques.

During this Action, working group 2 (WG2) will develop prototypes to demonstrate the application of quantitative methods to improve transparency for so-called "black box" models. The WG will also publish policy papers to suggest new regulation and guidelines for industry. Our objective is to lower, to the extent possible, the barriers to use more advanced methods.

In addition, our work will also address the issues of limited data and small-sample problems that arise in situations when the events of interest occur infrequently (e.g., defaults, fraud, etc.), providing solutions that will augment existing methods used in the financial industry. Furthermore, the WG will employ methods drawn from econometrics and statistics to transparently quantify and, to the extent possible, alleviate the impact of this problem on inference and prediction for financial decision making.

WG3 – Transparency into Investment Product Performance for Clients

From overfitting to underperformance - There are very few active investment products that outperform their passive benchmarks consistently after fees. Even "smart beta" strategies offered by asset managers have systematically underperformed.

The need to uncover failed trials - The goal of this WG is thus to develop consistent and reliable methods, together with the necessary synthetic scenarios, for choosing investment products ex-ante and evaluating their performance ex-post.

Progress beyond the state-of-the-art

First, this WG will address the data availability challenge. The WG will collect time series data on investment products, their underlying assets and relevant market conditions (risk factors). Some of the data will be directly collected from exchanges and websites and it will be possible to freely exchange it within the network. Other parts of the data will be protected by IP from data vendors.

How can you join us?

If you are interested in our Action, and would like to join and contribute, please get in touch, following the steps here defined.

Join and contribute!

What will you find here?

Periodic working meetings

In-person scientific events

Research papers

Online scientific events

Network of prestigious academics

Network of experienced practitioners

Financing opportunities (STSM, VMG, ITC)

Now is the time!

Join and contribute!

https://fin-ai.eu/

https://wiki.fin-ai.eu/index.php/Main_Page

https://www.meetup.com/Fintech_AI_in_Finance/