ADI – Cohort 3

Weekly Discussion Group
Lessons 3.3 and 3.4
1st December 2020

Discussion items

1. Introductions
2. Weekly Discussion Group – objectives and governance
3. Course Structure
4. Lesson 3.3 Review & discussion – Python intermediate
5. New item of the week
6. Lesson 3.4 Review & discussion – Data visualization & example tools
7. Housekeeping & What happens next? Key dates and action items

Weekly discussion group – objectives and governance

Objectives

- Get to know each other a bit and share experiences
- Have some interesting discussions and expand our horizons
- Review lesson material and the questions posted in the community group
- Cover any housekeeping updates

Governance

- These discussions are private to ADI cohort 3 – not quotable “Chatham House” rules apply
- Please do ask questions at any time – either verbally or using the chat feature
- Decks for each session will be added here: https://www.the-digital-insurer.com/weekly-discussion-group-for-adi-cohort-3/
- Need to attend 2 per course as a minimum

ADI Programme – course lessons

OUR CHANGING WORLD ADI

1.1 The 4th Industrial Revolution
1.2 Our connected world
1.3 The power of social
1.4 Changing consumer behaviour
1.5 More change coming
1.6 Why data is King
1.7 Cloud crushes costs
1.8 Insurance Re-Booted

TECH ENABLERS ADI

2.1 Tech Trends in Insurance
2.2 AI, Machine Learning & RPA
2.3 Blockchain
2.4 IoT
2.5 Chat & Voice
2.6 Immersive Technologies
2.7 APIs & Microservices
2.8 Tech Architecture best practices

DATA & ANALYTICS ADI

3.1 The Power of Data
3.2 Python basics
3.3 Python intermediate
3.4 Data visualization & example tools
3.5 Machine learning
3.6 D&A use cases in P&C
3.7 D&A use cases in Life & Health
3.8 Predictive Modelling

VALUE CHAIN INNOVATIONS ADI

4.1 Sales & Marketing
4.2 Underwriting – Life & Health
4.3 Underwriting – P&C
4.4 Product Development
4.5 Service & Administration
4.6 Claims – Life & Health
4.7 Claims – P&C
4.8 Implementing value chain innovations

NEW DIGITAL BUSINESS MODELS ADI

5.1 Platforms & Ecosystems
5.2 Microinsurance
5.3 On-demand
5.4 Comparison Sites
5.5 Peer-to-Peer & community
5.6 Health & Wellness
5.7 Commercial
5.8 Building new digital business models

MARKETING & CUSTOMER EXPERIENCE ADI

6.1 Data-led marketing
6.2 Direct digital marketing
6.3 Digital marketing for advisors (O2O)
6.4 Power of content
6.5 Omni sales & servicing
6.6 Customer lifetime value & customer advocacy
6.7 Customer Experience
6.8 Out-of-industry use cases

STRATEGY & TRANSFORMATION ADI

7.1 Why Strategy beats execution
7.2 Regulations & ethics in a digital world
7.3 Transforming the old vs building the new
7.4. Partnerships in a digital world
7.5 AGILE & LEAN basics
7.6 Change Management as a discipline
7.7 Cultural change for a digital world - Digital as DNA
7.8 How to succeed when most transformations fail

ADI ASSOCIATE DIGITAL INSURER

Data & Analytics Overview

DATA & ANALYTICS ADI

- 8 x1-hour lessons
- 100% Virtual
- Personal Mentor
- Webinars & Weekly Clinics
- Business Related Assignments
- Course Community

8 Lessons for Data & Analytics

3.1 Power of Data

Data trends and business value as well as management and governance of data

3.2 Python basics

Get hands on with some basic coding!

3.3 Python intermediate

Explore structured data with Pandas and complete a basic model

3.4 Data Visualisation & example tools

Importance of visualisation tools and hands on session with Tableau

3.5 Machine Learning

Understand terminology and apply to use cases. Supervised and unsupervised learning algorithms

3.6 D&A for Property & casualty

Focus on Property & Casualty use cases

3.7 D&A for Life and Health

Focus on Life and health use cases

3.8 Predictive modelling

Overview of predictive modelling including the basics, techniques and industry use cases

The TDI faculty for Data & Analytics

TDI ACADEMY
LEARNING FOR THE DIGITAL AGE

ADI
ASSOCIATE DIGITAL INSURER

DATA AND ANALYTICS ADI

Curriculum & Examination Design

Graham Spriggs

3.1 Power of data

Patricia Saporito

3.2 Python basics

Jyoti Gupta

3.3 Python intermediate

Jyoti Gupta

3.4 Data visualization and example tools

Jyoti Gupta

ADI Programme Director

Malini Nagaria

3.5 Machine learning

Jyoti Gupta

3.6. D&A - use cases in property and casualty

Patricia Saporito

3.7 D&A- use cases in life and health

Yannick Even

3.8 Predictive modelling

Yannick Even

Lesson 3.3– Python Intermediate

Reminder on Learning goals

Goal 1	Understand functions of Python library - Pandas
Goal 2	Complete simple exercises in Pandas to explore structured data

Data Tabulation at scale !

Lesson led by:

3.2 Python Intermediate

Jyoti Gupta

Content overview

Topic 1 – setup, reading files, view basic information

- Setup
- Reading files
- View basic information

Topic 2 – Simple data selection, conditional data selection

- Simple data selection
- Conditional data selection

Topic 3 – Descriptive statistics of data, grouping data

- Descriptive statistics of data
- Grouping of data

Python Intermediate – Before you start

This is a **hands-on lesson**

- Requires PC or laptop (Windows/Mac) and WiFi
- Please set aside time to setup the software, follow along and code
- Recordings are a little shorter than other lessons so that you can pause in between the recordings and and practise the code

Note: If you run into issues while installing software or accessing files, I will be happy to assist in the weekly clinic or at this email : **jyoti.g@xccelerate.co**

Additionally, a step by step guide on software installation and accessing files is given here:

https://www.the-digital-insurer.com/set-up-instructions-for-lessons-3-2-python-basics-3-3-python-intermediate-and-3-4-data-visualisation/

The link above is also available in the “getting started” section of this lesson

Pandas vs Excel

- Pandas has a steeper learning curve than Excel, but Pandas
  - does everything that Excel can do and more
  - can read data from different sources – html files, csv files, Databases
  - offers more flexibility in customizing charts
  - can apply hundreds of computations to millions of data points faster than Excel
  - can automate complex tasks easily
- **Use Excel if you have smaller amount of data and simple computations**
- **Use Pandas if you have larger data sets and more complex workflows**

This lesson:

- Helps you take your ***First Steps towards learning Pandas***
- Mastering Pandas usually takes 15-20 hours
- For a deeper dive, refer to the documentation in the Further References section

Lesson 3.3 – Community Discussion Topics

Posted on the ADI Community Group

Q1. How did the setup go. Do you need any more help?

Q2. How did you find data selection and grouping?

Q3. What has your experience been like so far?

News of the week: LexisNexis launches geospatial data visualisation tool

LexisNexis launches geospatial data visualisation tool

by Roxanne Libatique
04 Sep 2020

SHARE

"LexisNexis Risk Solutions has launched new functionality to its geospatial data visualisation tool that will help the insurance sector to gain a clearer understanding of exposures and accumulations in near real-time.

The geospatial data visualisation tool, LexisNexis Map View, offers insurers greater visibility into environmental and peril risks across the whole of their book to help them come up with prices accurately, manage claims, and plan resources for extreme weather events."

Free e-newsletter – get the latest news!

LATEST IB TALK

Construction insurance

LATEST NEWS

Fenchurch Law on the next steps for the Supreme Court business interruption judgement

"We are dealing with hypotheticals in an extraordinary situation"

Getting ahead of the curve

As consumers drive technology advances, how can businesses stay a step ahead?

Lockton examines the pandemic's impact on manufacturers' Brexit preparedness

Five hundred UK manufacturers polled

https://www.insurancebusinessmag.com/uk/news/breaking-news/lexisnexis-launches-geospatial-data-visualisation-tool-232654.aspx

Lesson 3.4 – Data Visualisation (DV) & example tools

Reminder on Learning goals

Goal 1	Understand data visualisations
Goal 2	Create data visualisations

Lesson led by:

3.4 Data Visualisation

Jyoti Gupta

Content overview

Topic 1 – Definition, benefits and comparison of visualisation tools

- What is DV?
- Evolution
- Benefits
- Tools available
- DV for insurance
- Sample dashboards

Topic 2 – Types of visualisations and when to use them in insurance

- Review of types of charts

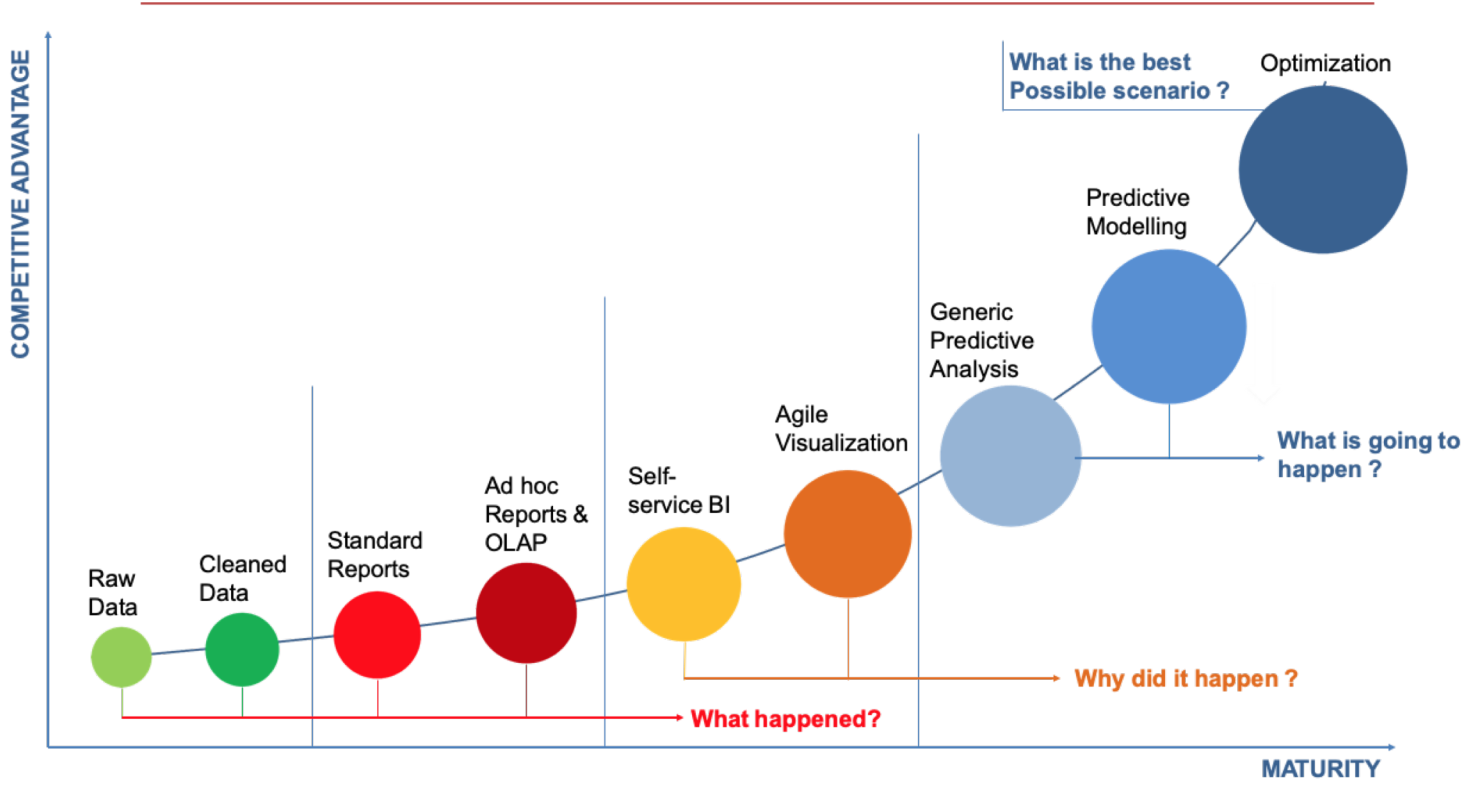
Topic 3 – Hands-On with Tableau – Setup, understand the Interface

- Setup
- How to use -the interface

Topic 4 – Hands-On with Tableau – Create charts and dashboard

- Charts
- Dashboards

Evolution of data visualisation



Source: *Decivision: Évolution de la BI*

Insurance analytics using Tableau

Duration: 2 mins

Allstate detects and prevents insurance fraud

Tableau
TDI viewing Tip;

Short clip on how analytics speeds up and streamlines workflows for combating insurance fraud.

Video Link

Possible discussion points for Weekly Clinic / Things to think about

- How are analytics being used in your current environment?
- What are the different applications where visualisations aid analytics in insurance?
- What is your experience while creating Tableau Visualisations in your current environment
- Compare Drag-and-Drop tools vs more programmatic tools like pandas

Video Source : Tableau

Lesson 3.4 – Poll Question

Q. Select the single use case you think will most benefit from data visualisation

1. Dashboard for sales people
2. Claims dashboards
3. Underwriting dashboards
4. Key metrics and financial performance for leadership teams

Lesson 3.4 – Community Discussion Topics

Posted on the ADI Community Group

Q1. How are analytics being used in your current environment?

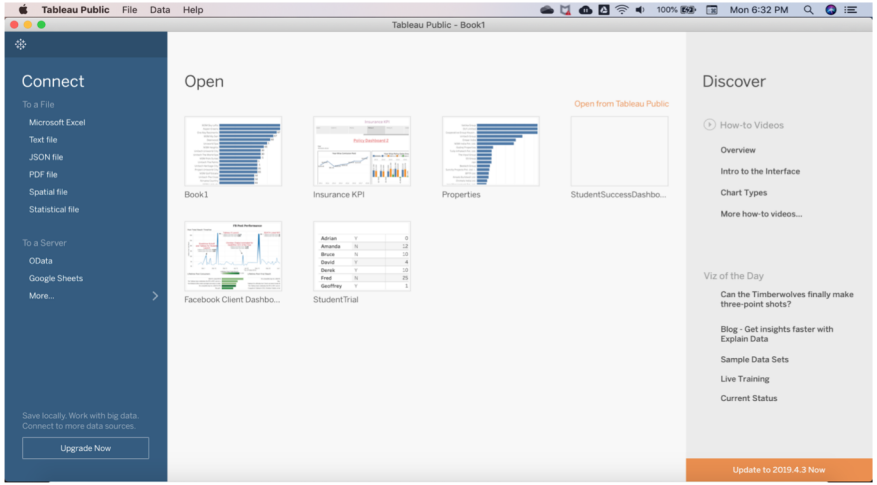
Q2. What are the different applications where visualisations aid analytics in insurance?

Q3. Which tools work best? What experience have you / your company had?

Set up Tableau

We are going to create our visualisations in Tableau Public – a free version of Tableau software.

- To download and install Tableau Public, go to: https://public.tableau.com/en-us/s/download
- Download the Mac or Windows version
- For further information on how to download Tableau, including how to contact us if you have any issues, please visit: https://www.the-digital-insurer.com/set-up-instructions-for-lessons-3-2-python-basics-3-3-python-intermediate-and-3-4-data-visualisation/



Assignment for Data & Analytics (D&A)

- Submission Deadline for D&A Assignment – **22nd December 2020**
- D&A Assignment – data visualisation **or** essay – choice is yours
- Assignment not assessed until all Lessons completed, MCQ's are passed and feedback provided
- Allow around 3-6 hours to complete and submit your Assignment
- Results sent within 21 days
- Pass or fail with the opportunity to retake should you fail (one month resubmission deadline)

If you choose the data visualisation.

Make your analysis clear

Ensure your visuals are clear and readable

Use additional slides if required

Include a self-reflection

Include references or evidence of further reading/research

Housekeeping

1. **Are you on track?**
   - Lessons 3.3 and lesson 3.4 done
   - Completed = videos all watched + MCQs passed + feedback completed + further references (as you see fit)
   - If you are ahead of this, no problem; if you are behind – no problem but try to commit to three hours a week (covering two lessons)

2. **Week ahead targets**
   - Complete lessons 3.5 and 3.6
   - Start to think about your Assignment and which one you want to do
   - Complete any outstanding lessons and get up to speed

3. **Next weekly discussion group – 8th December @ 5pm HK/ SG time**
   - Review and discuss lessons 3.5 (Machine Learning) and 3.6 (D&A Use Cases in P&C)
   - Ask Jyoti any questions regarding the exercises or the assignment

Key dates for December

Dec-20

- 1/12 - DG 2 (D&A)
- 8/12 - DG 3 (D&A)
- 15/12 – DG 4 (D&A - 90 mins)
- 15/12 – Value Chain Innovations Course & Course Assignment released
- 22/12 – D&A Assignment deadline
- 22/12 – DG 1 (VCI)
- 29 / 12 – NO DG

Assignment deadline for D&A :

22nd December 2020

= Weekly Discussion Groups

= Course & Assignment release dates

= Assignment submission deadlines

= Complete

https://www.the-digital-insurer.com/topic/cohort-3-programme-schedule/

Upcoming events: TDI / FTAHK virtual meet up – 3rd December

EVENT TYPE **VIRTUAL NETWORKING**

Singapore Private Virtual Networking Event with TDI & SFA

Date
Thursday 3rd December, 2020

Time
12:30pm - 2:00pm (SG)

Location
Virtual Meetup - Invite only

Organiser
The Digital Insurer & Singapore FinTech Association

Virtual networking event on 3rd December @12.30-2.00pm SG with TDI & SFA

https://www.the-digital-insurer.com/event/singapore-private-virtual-networking-event-with-tdi-sfa-2/

Agenda	
15 minutes	Networking
35 minutes	Panel discussion – Preview on Singapore FinTech Festival
10 minutes	InsurTech presentations and update on ITC Asia
5 minutes	TDI & SFA updates
30 minutes	Networking

Speakers

Subhajit Mandal
SFA InsurTech Sub committee member

Michael Cheng
SFA InsurTech Sub committee member

Hugh Terry
Founder, The Digital Insurer

Open Forum - Need clarification or more info?

Access problems?

Usability problems?

General questions?

We are here to help

- General questions/queries - please email us at adi@the-digital-insurer.com
- General concerns or queries please email Malini, the Programme Director: malini.nagaria@the-digital-insurer.com
- For curriculum and/or assignment queries, please email Graham, Curriculum Director: graham.spriggs@the-digital-insurer.com