

تحديات

كيف نستخدم تقنيات ذكاء الاعمال
لدعم اتخاذ قرارات الجودة في القطاع الصحي

CHALLENGES

HOW DO BUSINESSES MAKE EFFICIENT
HEALTHCARE SERVICE WITH BUSINESS
INTELLIGENCE?

ALAA HADY
MANAGING PARTNER
ADVANCED MANAGEMENT
SOLUTIONS

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الثورة الصناعية
الأولى

02

الثورة الصناعية
الثانية

03

الثورة الصناعية
الثالثة

04

~~ثورة المعلومات~~

ثورة

المحاور

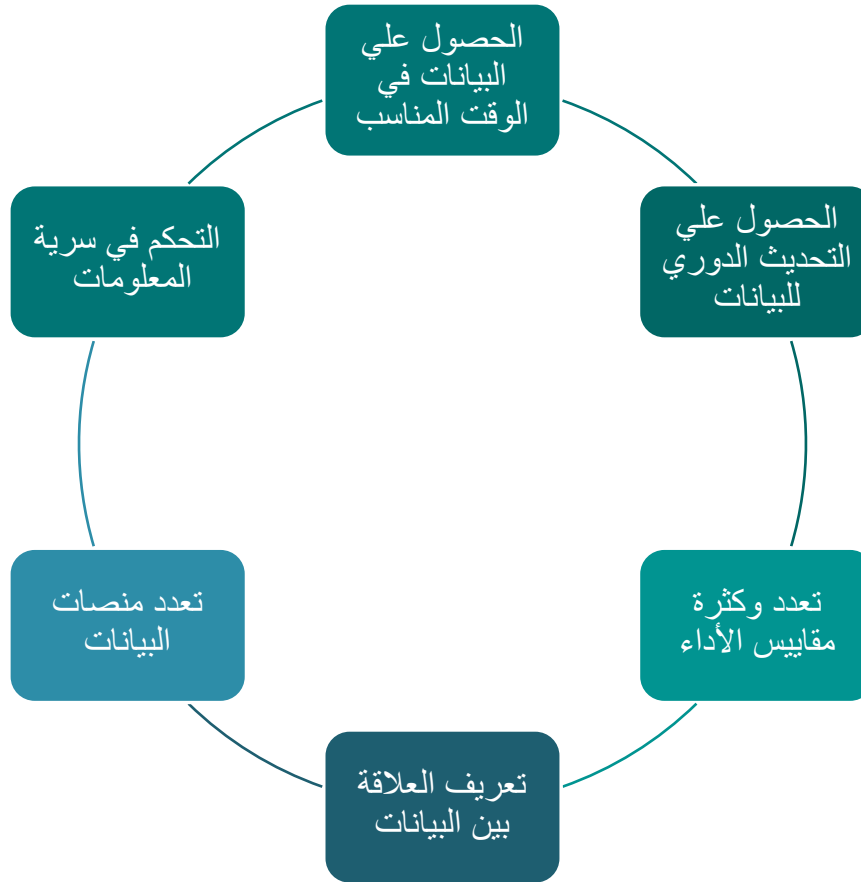
- ما هي الصعوبات التي تواجهها في جمع مؤشرات الجودة في القطاع الصحي؟

- هل توجد جميع بيانات الجودة في نظام واحد ام عدة أنظمة؟

- كيف نستعمل تقنيات الذكاء الصناعي في تحسين اداء الجودة؟

- كيف نستخدم ادوات ذكاء الاعمال في معرفة أسباب ضعف الجودة؟

تحديات تحليل وتنقية وعرض البيانات

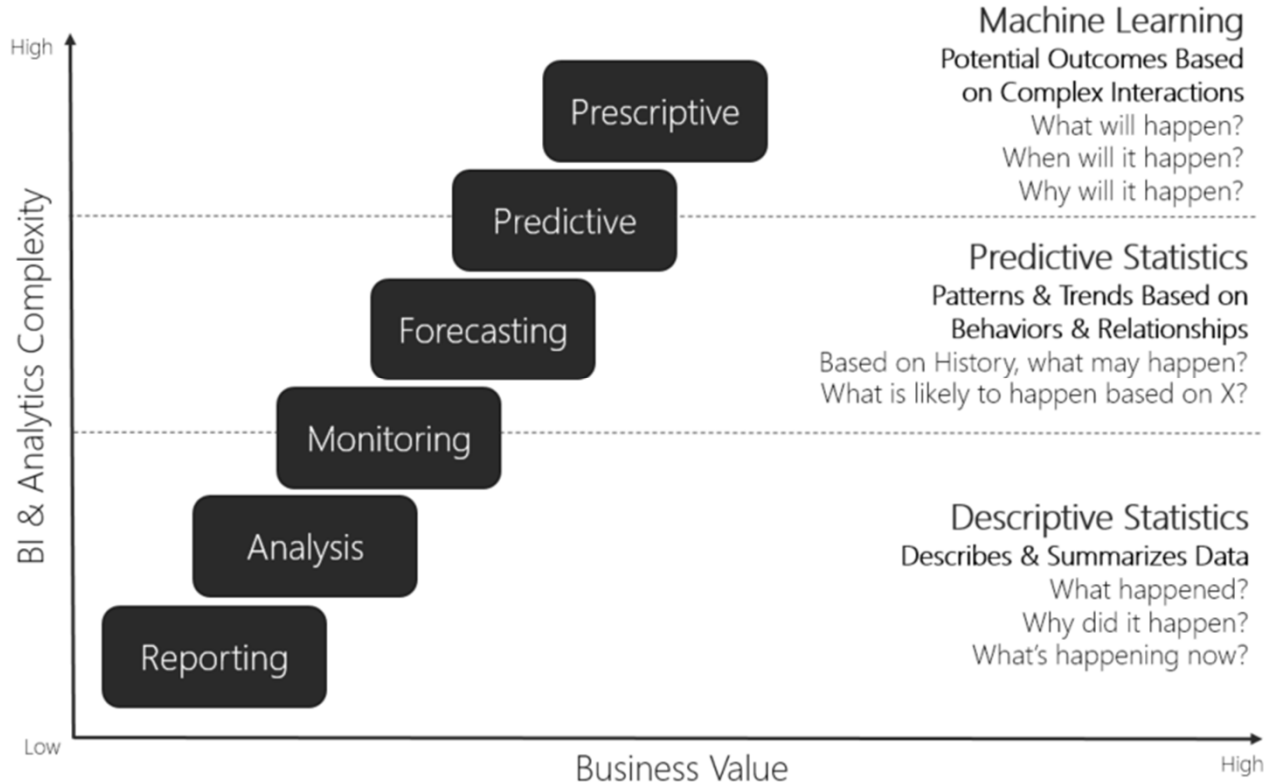


التحليل الذكي للأعمال Business Intelligence

تحليل الماضي وتحسين المستقبل

وضع أطر لإدارة الأداء لتحديد المؤشرات
الرئيسية وتتبعها وتوفير التحليل الذكي
للأعمال.

Maturity Model



Healthcare Metrics & KPIs

Operation

Finance

Internal

Public health

Emergency

Care

Communication

OPERATIONS

- Patient Wait Time
- Average Number of Patient Rooms in Use at One Time
- Staff-to-Patient Ratio
- Bed or Room Turnover
- Communication between Primary Care Physician, Proceduralist, & Patient

FINANCE

- Average Insurance Claim Processing Time & Cost
- Claims Denial Rate
- Average Treatment Charge
- Permanent Employee Wages

INTERNAL

- Trainings Per Department
- Number of Mistake Events
- Patient Confidentiality
- Number of Partnerships with Advocacy Groups

PUBLIC HEALTH

- Childhood Immunizations
- Number of Educational Programs
- Number of Preterm Births

EMERGENCY

- Patient Wait Times by Process Step
- Time Between Symptom Onset & Hospitalization
- Number of Visitors (Patients) Who Leave Without Being Seen

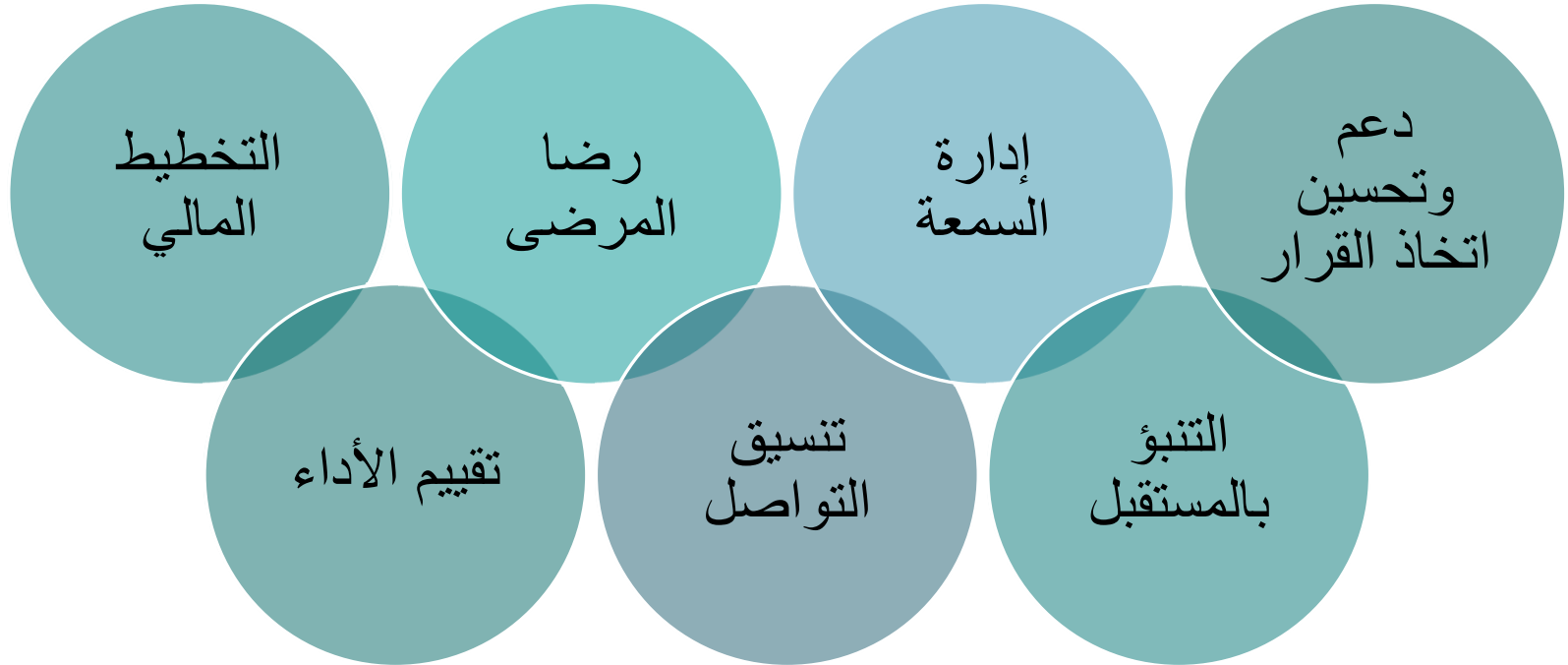
CARE

- Medication Errors
- Patient Vs Staff Ratio
- Patient Follow-Up

COMMUNICATIONS

- Number of Media Mentions
- Overall Patient Satisfaction
- Percentage of Patients Who Found Paperwork to Be "Clearly Written Straightforward"

فوائد ذكاء الأعمال في قطاع الرعاية الصحية



فوائد تقرير الرعاية الصحية

الإدارة الوقائية

مراقبة المرض

خفض التكاليف غير الضرورية

التقنيات التشخيصية والعلاجية

رفاهية المريض

Business Intelligence

أشهر برامج التحليل الذكي للأعمال

SAP Business Intelligence

Oracle BI

Microsoft Power BI

MicroStrategy

Datapine

SAS Business Intelligence

Yellowfin BI

QlikSense

Zoho Analytics

Sisense

Looker

Clear Analytics

Tableau

Domo

IBM Cognos Analytics

تجربة عملية

Healthcare data diagram



Hospital KPI dashboard

Treatment costs:

ER waiting time:

Patient wait time



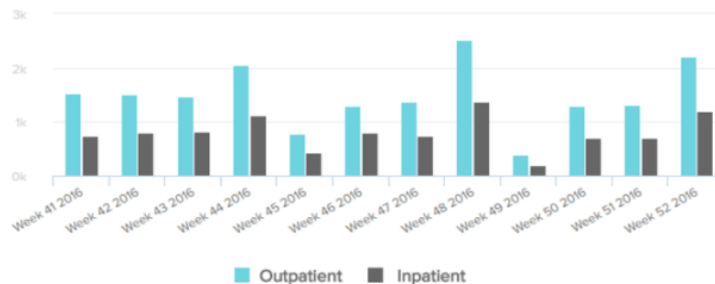
50,001
Total Patients

34,863
Total Admissions

\$ 8,742
Avg Treatment Costs

53min
Avg ER Wait Time

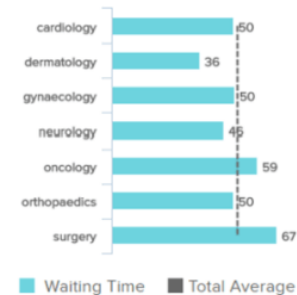
Outpatients vs. Inpatients Trend



Patients By Division

division	patient_status	
	inpatient	outpatient
Surgery	9,471 ↑	17,642
Gynaecology	6,869 ↑	13,053
Dermatology	5,299	9,772 ↓
Neurology	3,540	6,581
Oncology	3,088 ↓	5,842
Orthopaedics	2,809	5,144
Cardiology	2,046	3,868 →

Avg Waiting Time By Division



Patient satisfaction dashboard

Patient satisfaction

Patient safety

Average waiting time

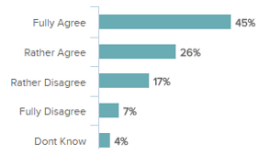


Saint Martins Clinic

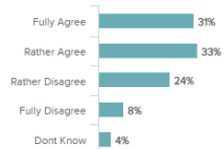
Patient Satisfaction

Overall Satisfaction **80%**

The staff explained procedures and instructions in an understandable way.



The staff took time to answer my questions.

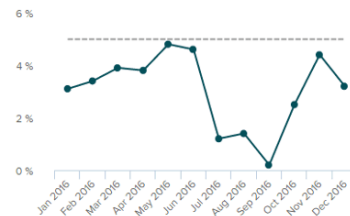


Lab Test Turnaround

Test	Average	Target
Amylase	31 hrs	24 hrs
ANA	180 hrs	168 hrs
aPIT	78 hrs	72 hrs
Basic Metabolic Panel	26 hrs	24 hrs
Complete Blood Count	28 hrs	24 hrs
Comprehensive Metabolic ...	52 hrs	48 hrs
Electrolyte Panel	23 hrs	24 hrs
Sedimentation Rate	94 hrs	96 hrs

Patient Falls

(with Target = 4.99%)



Average Waiting Times



24 min

Arrival To Bed



67 min

To See A Doctor



74 min

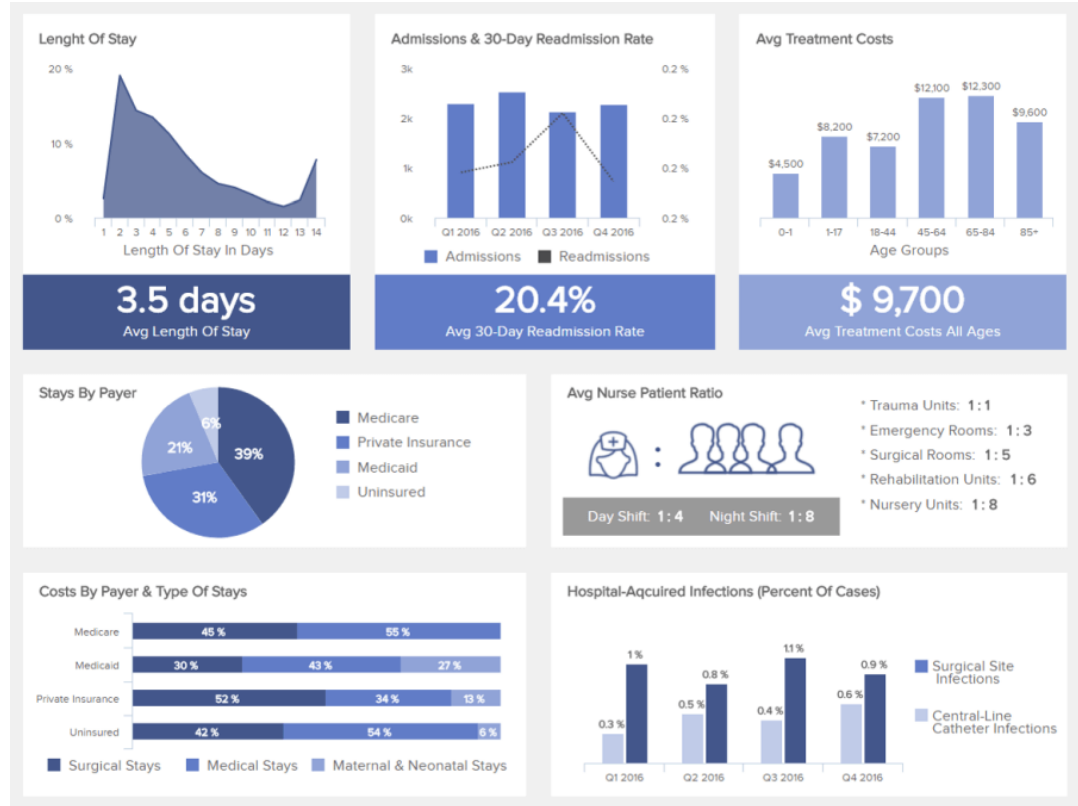
To Get A Treatment

Hospital performance dashboard

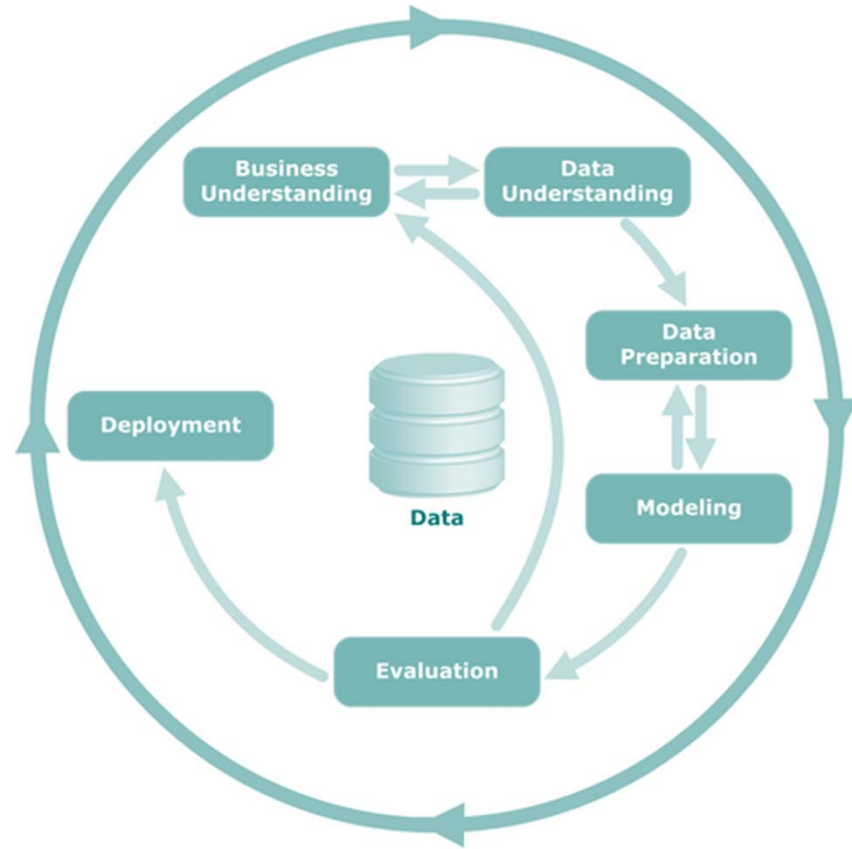
Average hospital stay

Readmission rates

Costs by payer



How to start



Deployment

CEO

CEO

Top management

CSS

COO

Managers

Quality
Manager

Manager

Department
Manager

Department
Manager

Sup and Staff

Unit head

Staff

Unit head

Staff

Unit head

Staff

RACI Example

Actions for the Focus Area	Roles and Responsibilities						
	Rita	Bob	Sue	Tom	Dick	Harry	Sally
Strategic Plan	R+A	I	CI	I	I	I	I
Leadership Development	R+A	C	CI	I	I	I	I
External Masterclasses	R+A	I	CI	CI	I	I	I
Commissioning external consultants	R+A	C	I	CI	I	I	I
Strategic Measurement	R+A	I	-	I	I	I	I
Professional Development	R+A	C	-	I	I	I	I/C
Change Agent Programme	R+A	I	CI	I	I	I	I

بعض مزايا Power BI لقطاع الرعاية الصحية

يظهر البيانات الرئيسية بوضوح

يشير إلى الاتجاهات والأنماط داخل البيانات

يزيد من فهم البيانات المعقدة

يجعل البيانات أكثر سهولة للوصول إلى صانعي القرار الرئيسيين

يدعم كبار المديرين التنفيذيين الطبيين لاتخاذ القرارات بسرعة

تمكن من إدارة البيانات بسهولة لاستخدامها عبر الإدارات المتنوعة

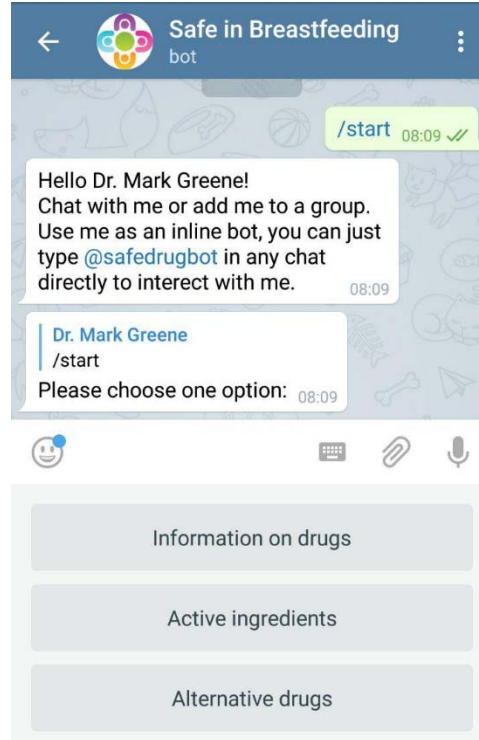
Top 10 applications of machine learning in healthcare

1. Identifying Diseases and Diagnosis
2. Drug Discovery and Manufacturing
3. Medical Imaging Diagnosis
4. Personalized Medicine
5. Machine Learning-based Behavioral Modification
6. Smart Health Records
7. Clinical Trial and Research
8. Crowdsourced Data Collection
9. Better Radiotherapy
10. Outbreak Prediction

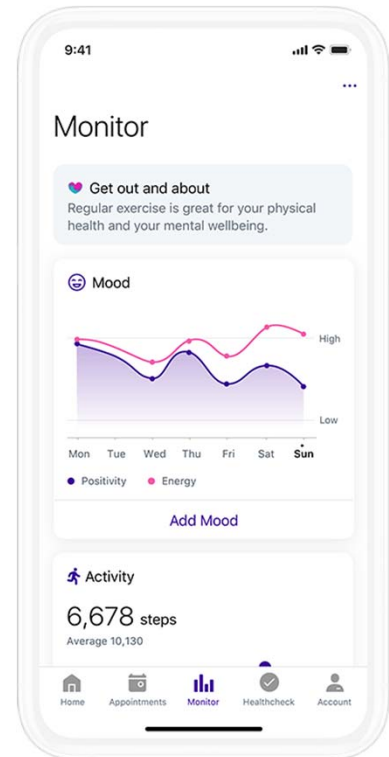
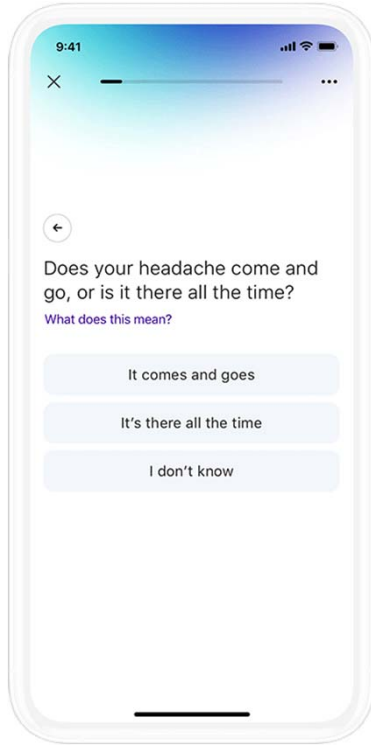
Telemedicine



A virtual assistant



A virtual assistant



Skin cancer



ISIC_0029306



ISIC_0029307



ISIC_0029308



ISIC_0029309



ISIC_0024306



ISIC_0024307



ISIC_0024308



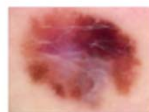
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ISIC_0029314



ISIC_0029315



ISIC_0029316



ISIC_0029317



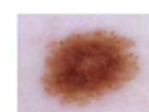
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ISIC_0029322



ISIC_0029323



ISIC_0029324



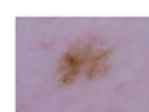
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ISIC_0024322



ISIC_0024323



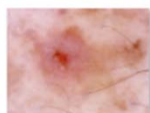
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ISIC_0024325



ISIC_0029330



ISIC_0029331



ISIC_0029332



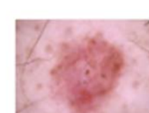
ISIC_0029333



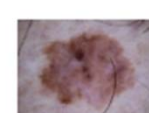
ISIC_0024330



ISIC_0024331



ISIC_0024332



ISIC_0024333

Pulmonary Chest X-Ray Abnormalities



CHNCXR_0001_0



CHNCXR_0002_0



CHNCXR_0003_0



CHNCXR_0004_0



MCUCXR_0005_0



MCUCXR_0006_0



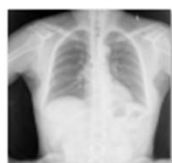
MCUCXR_0008_0



MCUCXR_0011_0



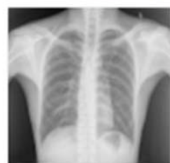
CHNCXR_0009_0



CHNCXR_0010_0



CHNCXR_0011_0



CHNCXR_0012_0



MCUCXR_0019_0



MCUCXR_0020_0



MCUCXR_0021_0



MCUCXR_0022_0



CHNCXR_0017_0



CHNCXR_0018_0



CHNCXR_0019_0



CHNCXR_0020_0



MCUCXR_0028_0



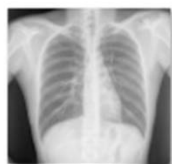
MCUCXR_0029_0



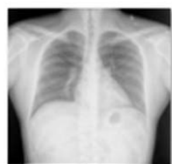
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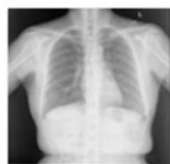
MCUCXR_0031_0



CHNCXR_0025_0



CHNCXR_0026_0



CHNCXR_0027_0



CHNCXR_0028_0



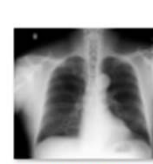
MCUCXR_0042_0



MCUCXR_0043_0

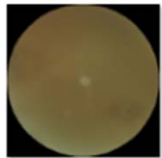


MCUCXR_0044_0

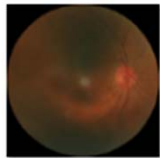


MCUCXR_0045_0

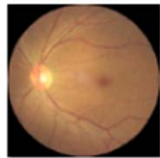
Ocular Disease Recognition



0_left



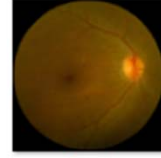
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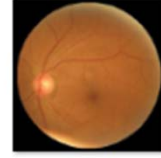
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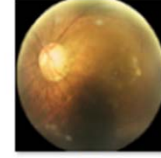
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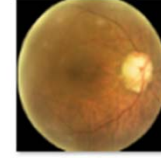
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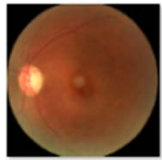
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4_left



4_right



5_left



5_right



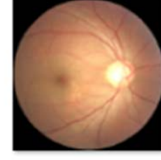
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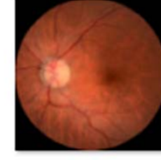
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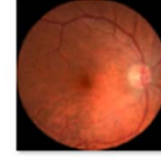
7_left



7_right



8_left



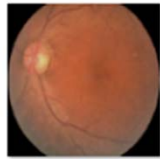
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9_left



9_right



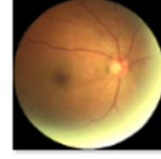
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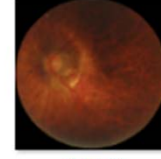
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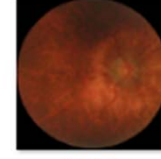
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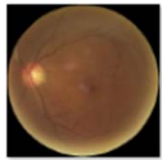
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13_left



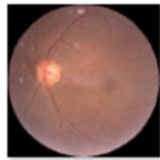
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14_left



14_right



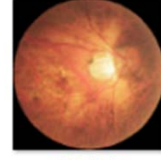
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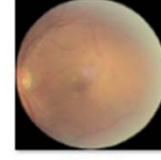
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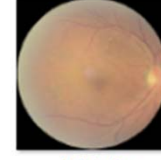
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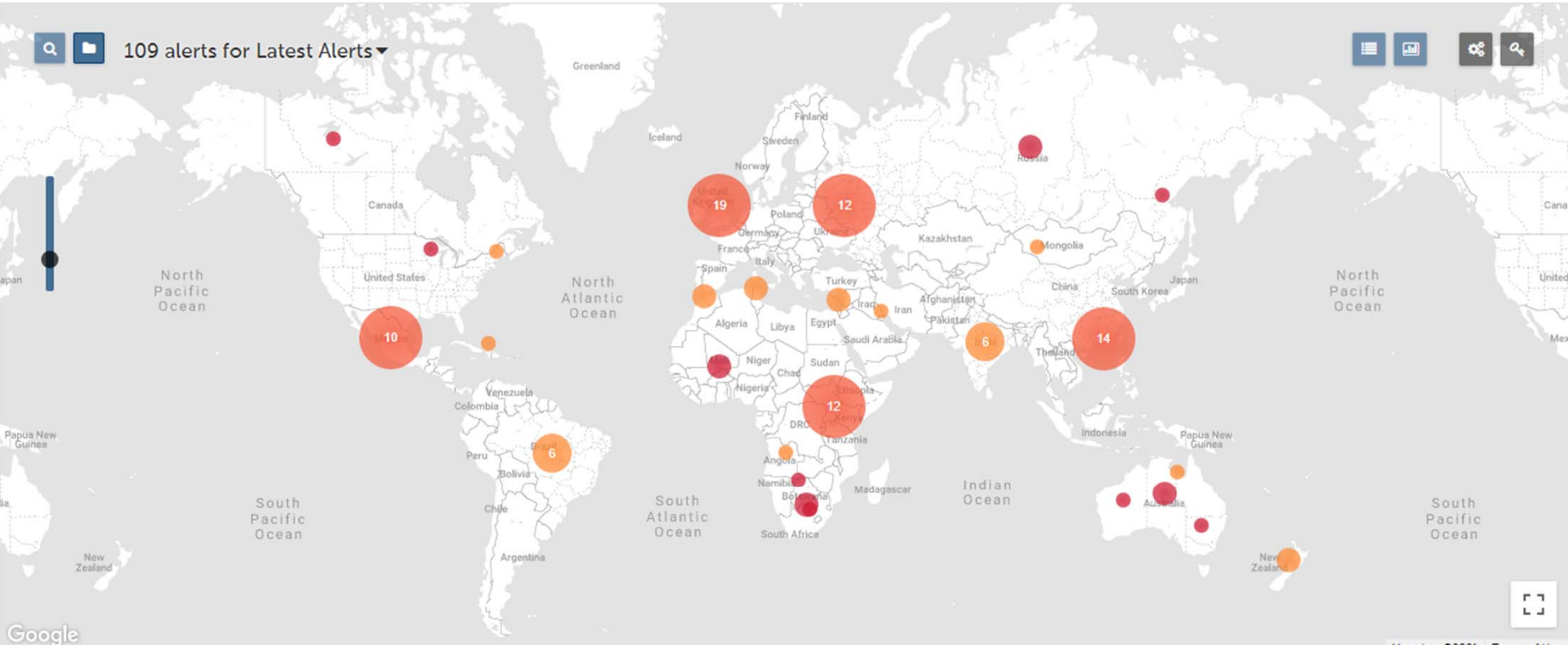


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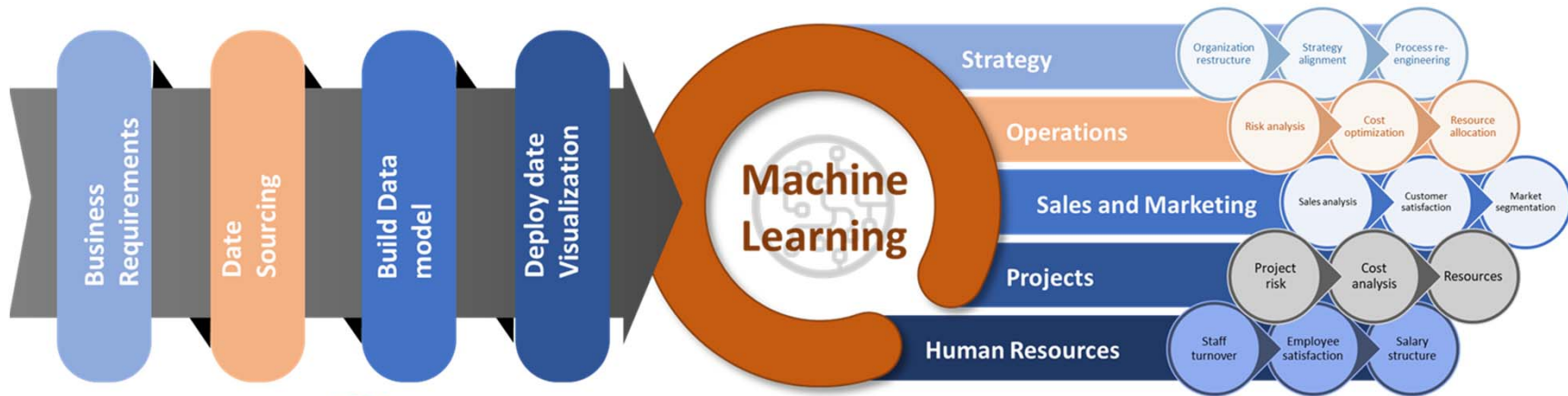
17_right

109 alerts for Latest Alerts



Google

Map data ©2021 Terms of Use



Information wealth model

Information wealth model

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علاء عبد الهادي استشاري في شركة الحلول المتقدمة للإدارة بكندا

عمل م. علاء في استشارات تطوير الاستراتيجيات واعاده الهيكلة وتطوير الموارد البشرية وحلول المعلومات وتحليل البيانات في عدد من شركات البترول والهيئات الحكومية والشركات الخاصة والشركات الهندسية بالإضافة الي الجمعيات غير الهادفة للربح كما وعمل في عدد من الشركات الاستشارية العالمية

قام المهندس علاء بتقييم الشركات في جائزه دي للموارد البشرية

حصل م. علاء على ماجستير في ادارته الاعمال من جامعه ماسترخت في هولندا و شهادته متخصص في الموارد البشرية من جامعه مينيسوتا وشهادته متخصص في تحليل البيانات من جامعه دوق وكان المهندس علاء عضو مجلس ادارته في جمعيه العربية لإدارة الموارد البشرية لمدة ثمان سنوات بالإضافة الى عضويته في العديد من الجمعيات المتخصصة

ALAA ABDULHADY

Managing Partner Advanced Management Solutions



PROFESSIONAL EXPERIENCE

Developed short and long-term strategy, initiatives and key performance indicators for organization structure for petrochemical construction company resulting in new strategy

Assessed and coached leaders on organization in manufacturing, construction and publishing industries

Developed organization structure for Makkah high commission authority

More than 30 years in managing, developing and implementing application at various industries include Financial, Military, Oil and Gas, Human Resources, Government and Engineering.

Certification

Certified IBM Artificial intelligence engineer

Certified IBM Artificial intelligence professional engineer

Certified Strategic Planning and Performance Management Expert (SPPME) from Performance Institute at Arlington, VA

EDUCATION

Advanced Business Analytics Specialization from *University of Colorado Boulder*

Human Resources management from *Carlson School of Management at University of Minnesota*

Data Analysis and Presentation Skills: the PwC Approach from *PWC*

Business Metrics for Data-Driven Companies from *Duke university*

Masters of Business Administration with Distinction – Strategy Management from *Maastricht School of Management, Maastricht, Netherlands*

Engineering Bachelor's Degree from *Alexandria University, Faculty of Engineering, Alexandria, Eaypt*