

Digital Systems

Week 3



Attendance Please login to Canvas and "Check-In"

Attendance is not a part of your grade for this class. The university has mandated that we take attendance for all classes, face-to-face, online and hybrid, to assist in contact tracing should an outbreak of Covid-19 occur.



ROADMAP



Learn IT! #1 and #2

Fall 2020



Learn IT! #1 and #2 Kickoff

- What?
 - Learn what Learn IT! #1 and #2 are all about
- Why?
 - Position yourself for success in Learn IT! #1 and #2



Learning Goals

TOPICS

- Individual branding and reputation management
- Digital identity and portfolio
- Privacy
- Search neutrality
- Communities of practice

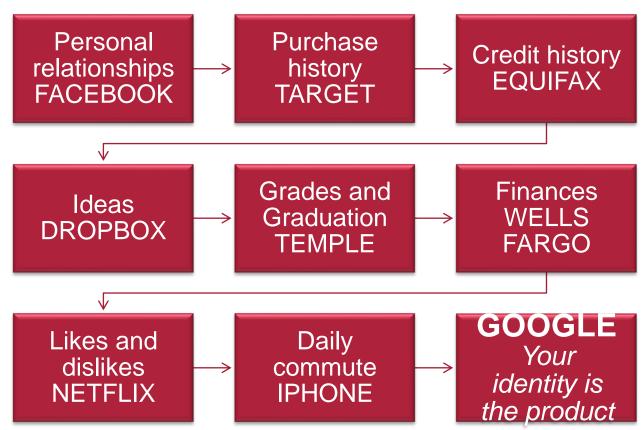
TECHNOLOGIES

- Community platform
- Cloud system
 architecture
- E-portfolio
- Web analytics
- SEO (search engine optimization)





What is a digital identity?

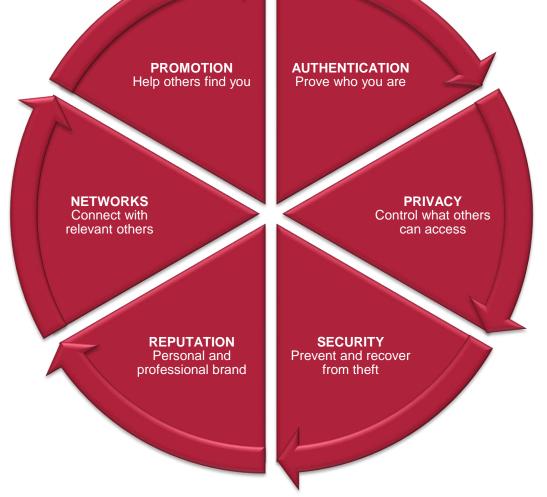


Source: The next revolution will be reclaiming your digital identity by Nik Milanovic, https://techcrunch.com/2017/10/17/the-next-revolution-will-be-reclaiming-your-digital-identity/





Digital identity management







Active digital identity management

Shape professional reputation Connect with relevant others





Community Platform

Cloud based platform built on WordPress

- social exchanges,
- open co-creation,
- digital branding

Website E-portfolios Professional achievement program Courses

- Only platform that integrates web, professional development & coursework.
- Proprietary to the nationally ranked Fox School's MIS department.



Digital Identity Management Assignment



program

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Fox major e-portfolio design requirements

- 1. Professional picture
- 2. About me (home) page
- 3. Three pages including "My Interests"
- 4. <u>Remove all extra</u> posts and pages

	T Fox School of Business
About	MY INFORMATION
	3 • <u>About</u> • <u>How to display pages in here</u> • <u>Pages vs. posts</u> • <u>Resume</u>
Replace this image with a professional or business casual picture	RECENT POSTS Removing the sample posts and pages How to use posts How to display a recent project Adding pictures
Josie Smith	Internship at XYX
BBA in MIS, Fox School of Business, Temple University	
Email: XXX@temple.edu	
Biography	
Thanks for looking at my eportfolio! I am originally from Lancaster, PA and went to ABC High. I am currently working on an internship at XYZ this summer. I chose MIS as a major because I believe IT will change the world and I am interested in a career that focuses on digital innovation.	



E-portfolio tips

DO'S

- Help Google: Include full name in the site title.
- Sample work. This is your digital portfolio!
- Describe work experience.
- Involvement in non-profits.
- Pictures of professional experiences.
- Proofread
- Google and Mobile friendly formatting.

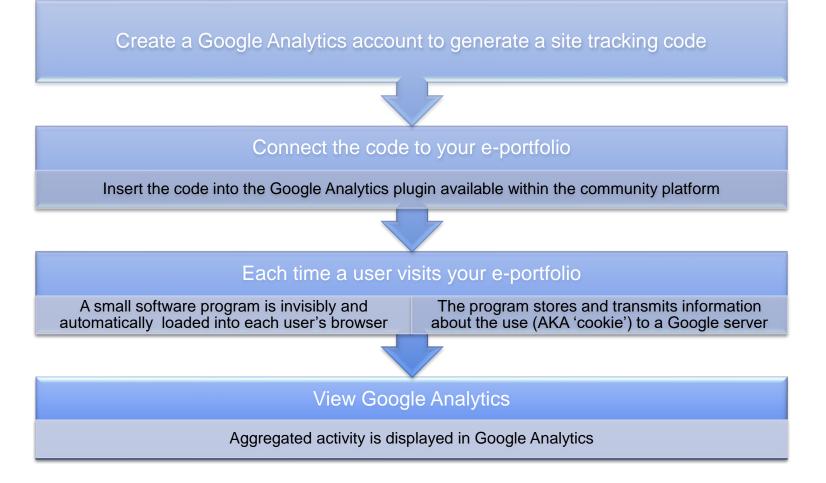
DON'TS

- Inappropriate photos
- Inappropriate content
- Private information
- Broken hyperlinks
- Word documents
- Don't password protect or close the site.
- Don't use custom formatting





Google Analytics

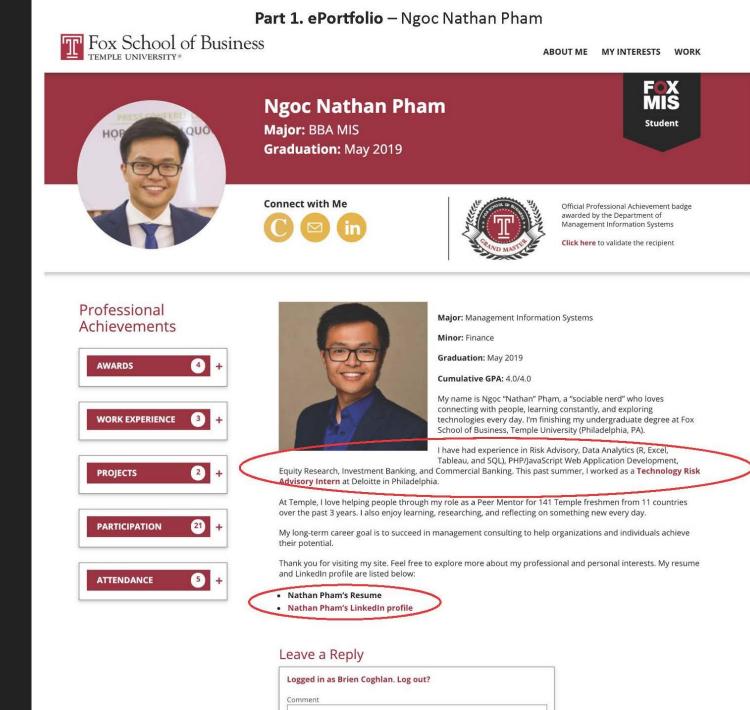






Learn IT! #1

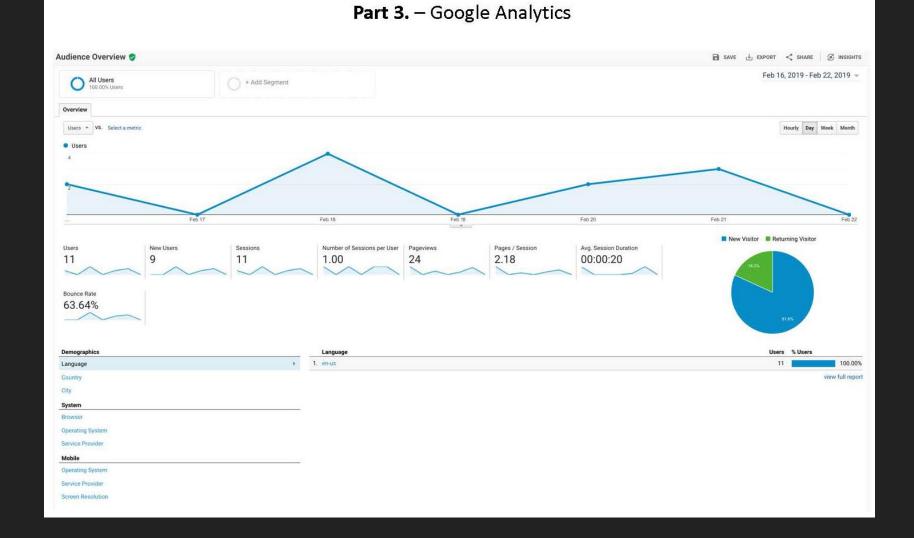




TIP: SHARE YOUR SITE WITH FRIENDS AND FAMILY

Learn IT! #2







Digital Systems

5.1 Information Systems Part I – CRM & ERP



What is ERP?

Enterprise Resource Planning

- Software or a System that:
 - Integrates functions
 - Streamlines processes
 - Manage core business

What problems could be solved by an ERP?



Source: https://erpinnews.com/5-enterprise-resource-planning-erp-trends-to-watch-in-2019

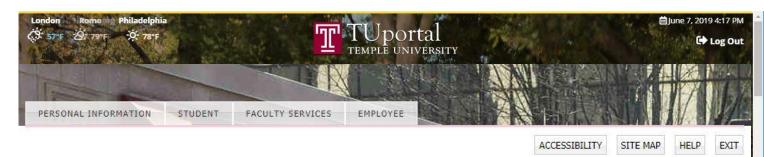




ERP – example TU Portal: banner

Database with a holistic vision!

- Who uses banner?
- What functions does banner serve for each user?
- What are the benefits to the University?



Main Menu

Personal Information

View and update: address, phone, emergency contact and TUalert information.

Student

Apply for Admission, Register, View your academic records.

Faculty and Advisors

Enter Grades and Registration Overrides, View Class Lists and Student Information

Employee

Review benefits and deductions, pay information, tax forms, leave activity, and enter a Leave of Absence request.

RELEASE: 8.8.3

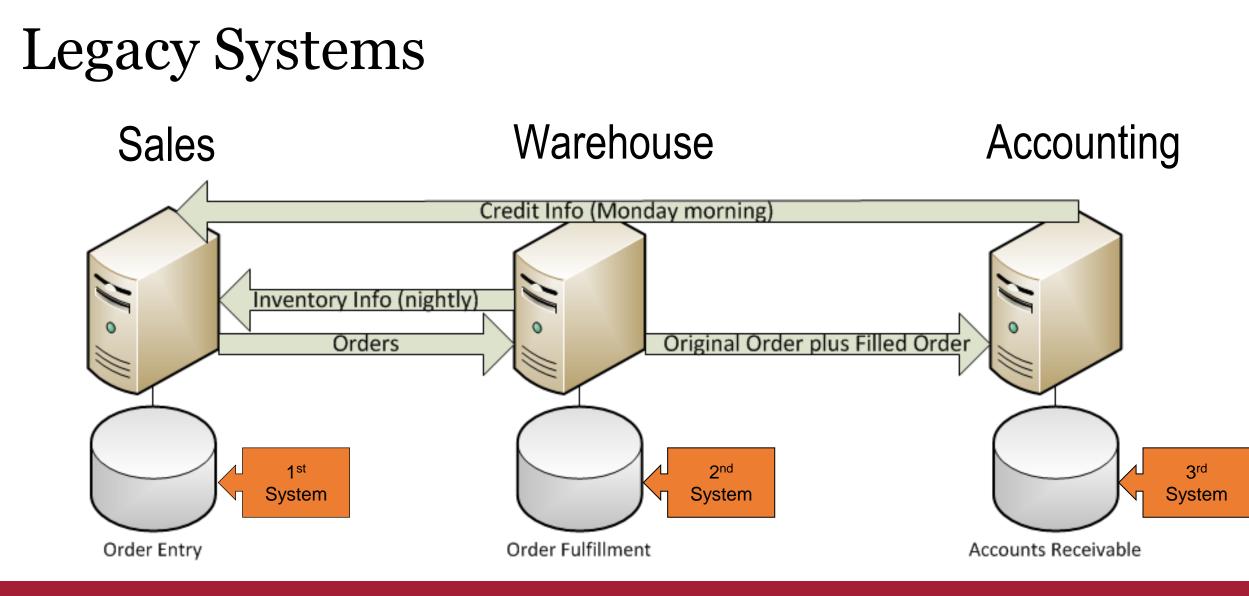
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If asked by Client Services, this is server 6









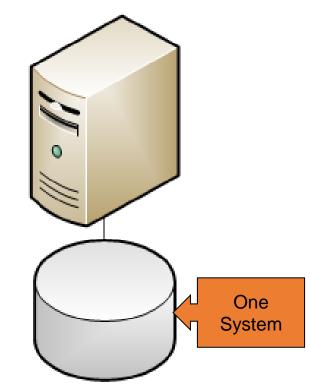


Enterprise Systems

Sales + Warehouse + Accounting

ERP analysis

- How many copies of data?
- What about decision making?
- What is eliminated?
- Client impact?







ERP – Value Proposition

Automates core business operations

- Why is this important for...
 - Risk Management?
 - Marketing majors?
 - HR & Accounting?
 - Finance & Strategy?
 - Anyone else?



Source: https://www.strategic.com/blog/2017/3-reasons-erp-training-important/





ERP – Key Takeaways

How does ERP create value?

- Integrated Database
 - One copy of data
- Collaboration
 - Improves decision making
- Flexibility & Mobility
 - Access anywhere/anytime
- Lowers costs



Source: http://blog.pragtech.co.in/erp-business-success/



What is CRM?

Customer Relationship Management Who Uses CRM?

- Sales
- Marketing
- HR
- Accounting

SITY

R

Strategy



Source: https://collectiveinnovation.com/the-art-of-customer-relationship-management/



What is CRM?

Customer Service:

Have you experienced this? Why?

- Transferred 2 or more times
- Repeat Story
- Disconnected
- Hold time approximately...
 - Fantastic music



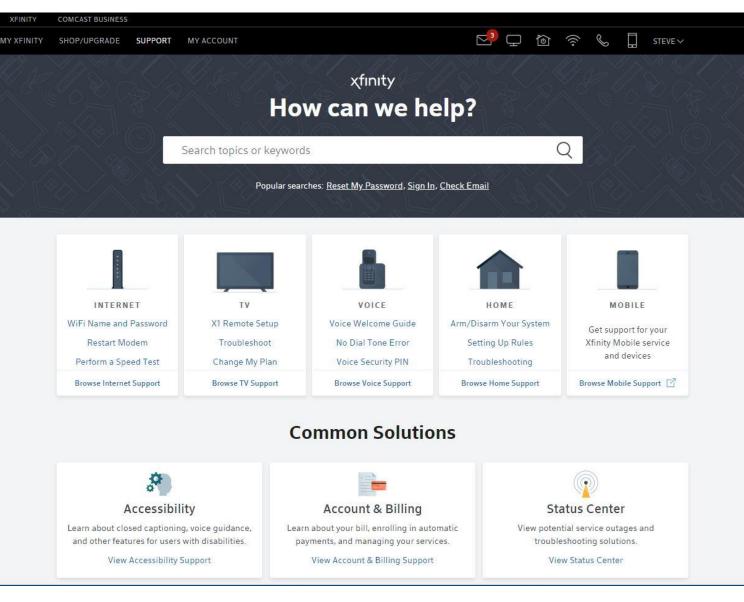
Source: http://donthatethegeek.com/cellular-carriers-screwing-phones/





CRM Case Study:

Xfinity



Source: https://www.xfinity.com/support/?CMP=ILC:MA:BAU:SUB:COM:HLP:INT55e0877fe16f7/

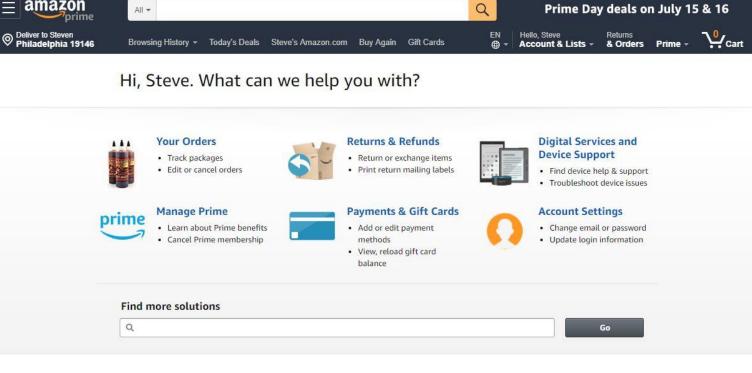




CRM Case Study:

Amazon

- **Data Collection**
- **Personal Storage**
- Recommendations
- Support



Browse Help Topics

amazon

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Recommended Topics	Need more help?	
Where's My Stuff?	Ask the Digital and Device Community	
Managing Your Orders	Contact Us	
Account Settings & Payment	Ayuda en Español	
Methods		
Returns & Refunds		
Shipping Policies		
Amazon Devices	5 327	

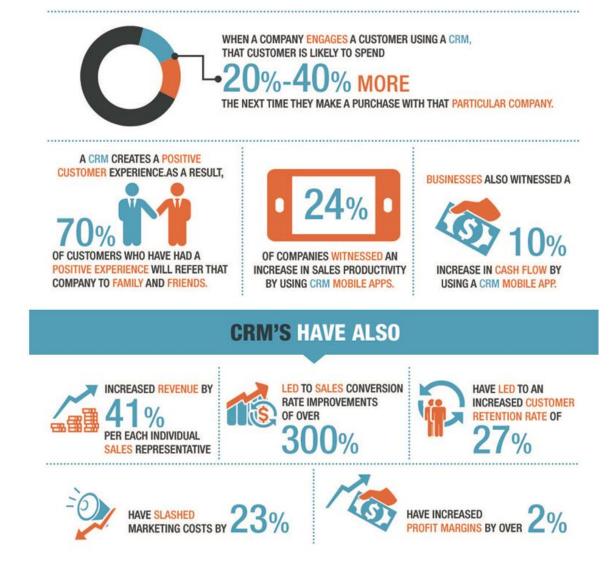
Source: https://www.amazon.com/gp/help/customer/display.html?nodeId=508510&ref_=nav_cs_help





Why purchase CRM?

- Do companies really need CRM?
- Why?
- What businesses would benefit?



Source: https://devftw.com/top-15-crm-software-for-retailers/





Why purchase CRM?

Customer Relationship Management

- CRM's track what kind of data?
- How do organizations use data?



Source: https://www.salesforce.com/hub/service/customer-service-examples/





CRM Dashboards

- What do they do?
- Who in the organization might want or need a CRM dashboard?
- Why are they important?

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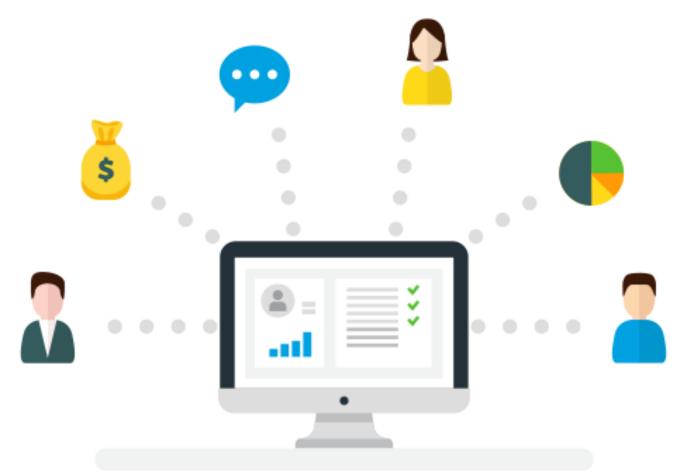
Source: https://www.salesforce.com/eu/learning-centre/crm/what-is-crm/





CRM Accountability

- What does this mean?
- Where is the data?
- Why is this important?



Source: https://www.workwisellc.com/crm-software/what-is-crm/





CRM Benefits

- Maximize Profits
- Understand Your Customer (data)
 - Analyze Buying Patterns
 - Problem Solving
- Accountability
- Customer Communication/Satisfaction
- Improve efficiency & information sharing



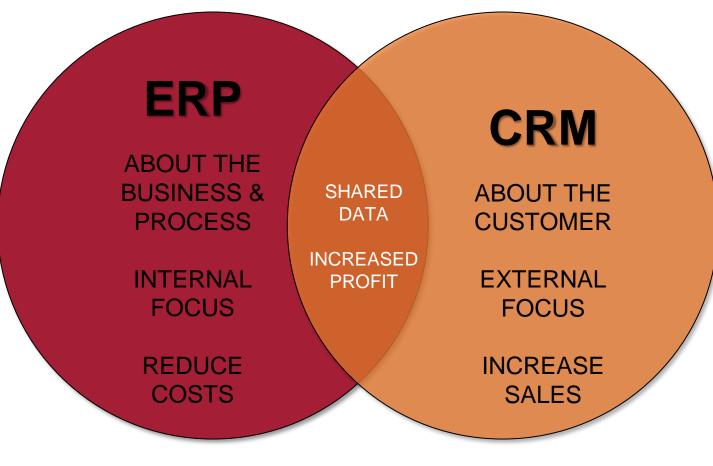
Source: https://strategiesgroup.com/blog/benefits-of-crm/





ERP & CRM

- What's the Difference?
- Which is a better first investment for a business?
- Why?









Digital Systems

Procure to Pay (P2P) In-Class Activity



Procure to Pay (P2P)

- What?
 - Review a narrative of the current P2P process at FitterSnacker
 - Review a swim lane diagram of how the process is currently performed
 - Create a swim lane diagram after the implementation of ERP to understand how it dramatically simplifies the process
- Why?
 - ERP systems can simplify business processes, making them much more efficient and much more effective
 - If your organization is not operating at this level of efficiency and effectiveness but your competitors are, you are at a major competitive disadvantage
 - It's all about leveraging technology to gain competitive advantage!





Read the following narrative: P2P is the core business process that is used by organizations to acquire the products and services they need to fulfill their mission. In this scenario, you are the plant manager at FitterSnacker, a company that makes and sells snack bars. The plant manager is responsible for determining what they are going to make, when they are going to make it and acquiring the raw materials (oats, raisins, chocolate chips, etc.) that they need to make the snack bars. Once the plant manager determines what they need, they send a purchase requisition to the procurement department.

The procurement agent verifies that the plant manager is authorized to place the order. They then select the supplier and send a purchase order to the supplier.

The supplier receives the order and picks, packs and ships the order. After the order has been shipped they send an invoice to the customer.

The warehouse receives the order and posts a goods receipt to show this. The person in the warehouse notifies the plant manager that the items have been received.

The invoice is processed by the accounts payable team in accounting. They match up the invoice with the purchase order and the goods receipt. If we received what we ordered and are being charged what we were expecting to pay then we pay the invoice. If not, we must figure out where the problem is and resolve the problem.





Digital Systems

6.1 Information Systems Part II – Data Analytics and SCM



What is Data Analytics?

Thoughts?

"The use of tools & people to uncover hidden patterns in the data that might not be readily available to the naked eye"

- Professor Lavin



Source: https://i2.wp.com/johnbauerconsulting.com/wp-content/uploads/2017/06/Big-Data-Analysis-In-HR-Department.jpg





What is Data Analytics?

Three Types of Analytics:

- Descriptive Dashboards (BI)
- Predictive use past data to model future
- Prescriptive Optimization; advise on how best to do your job.



Source: https://i2.wp.com/johnbauerconsulting.com/wp-content/uploads/2017/06/Big-Data-Analysis-In-HR-Department.jpg





"Analytics is the process of making sense of large data sets and unlocking patterns, often using data visualization, to enable better decision making."

- Professor Amy Lavin

Data Investments...Why Care?

Top Reasons Why:

- Decrease Expenses
- Find New Innovations
- Launch New Products/Services
- Increase Efficiency
- Transform Business
- Establish Data-Driven Culture

https://hbr.org/2017/04/how-companies-say-theyre-using-big-data



Source: https://hbr.org/video/3633937151001/the-explainer-big-data-and-analytics



FOX MIS

Big Data & Mickey D's

\$300 Million Acquisition

- Infrastructure Improvements
- Technology Transformation
- Digital Innovation
- Efficiency & Effectiveness
- Customer Experience

Predictive Analytics?



Source: KIYOSHI OTA/BLOOMBERG/GETTY IMAGES



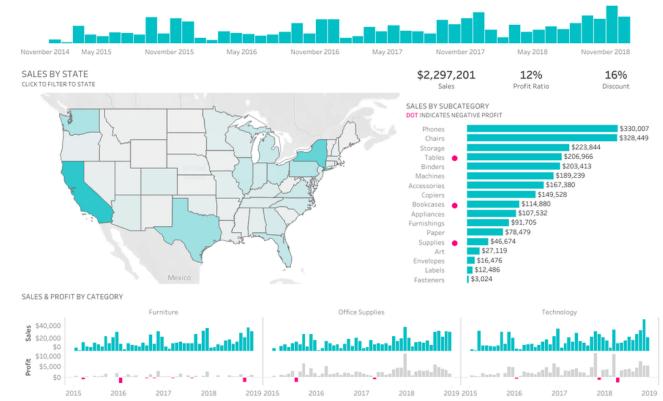
FOX MIS

What can data do for you?

Data Analysis & Data Visualization

- What's the difference?
 - Data Analysis: an exploratory process
 - Data Visualization: visual representation
- What's the role of the dashboard?
 - Who are your stakeholders?
 - Which industries utilize dashboards?
 - When do you need them?

SALES & PROFITABILITY



Source: https://thumbor.forbes.com/thumbor/960x0/https%3A%2F%2Fblogsimages.forbes.com%2Fevamurray%2Ffiles%2F2019%2F03%2FExecutive-Sales-Profitability.jpg

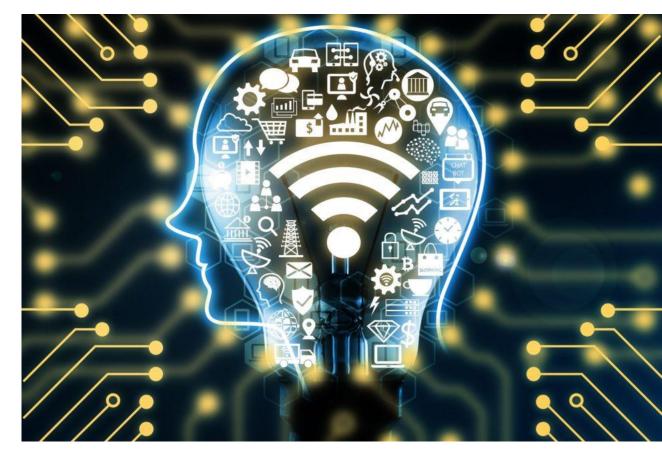




What is Business Intelligence (BI)?

BI Leverages Software & Services to Transform Data

- Mobile BI
- User friendly
- Agile & Intuitive Systems
- Leads to Strategic Business Decisions



Source: https://blog.radware.com/tag/internet-of-things/page/3/





Google Analytics

What Can We Track?

- web site metadata & user engagement
- Number of Sessions
- Average Session Duration (minutes, hours, etc.,)
- Number of pages visited
 - Duration of Each Visit
- Bounce Rate
- Conversion Rate







What is Supply Chain Management (SCM)?

"Supply Chain includes many components...from Procurement to Manufacturing to Distribution. It's about getting the right product on the right shelf at the right time!" – Professor Doyle

Cross Functional Approach:

- Improves trust & collaboration
- Improves inventory visibility & velocity



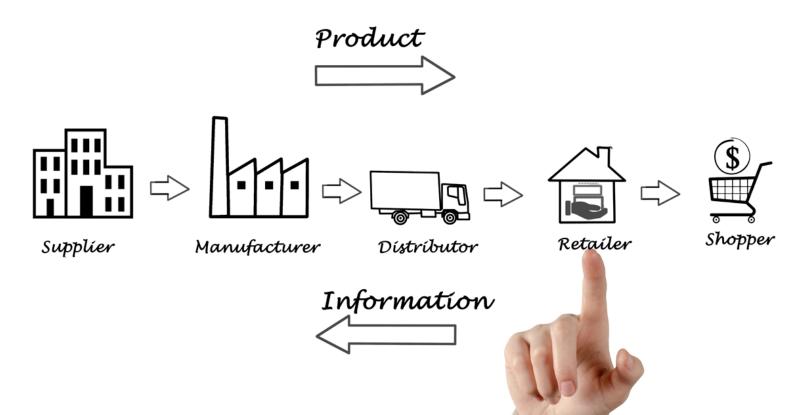
Source: https://www.chainstoreage.com/wp-content/uploads/2017/06/supplychain.jpg



Supply Chain Management...

Pick a product

- Who are the key actors?
- What types of materials are involved?
- What about technology?
- What skills are required?
- What's missing?



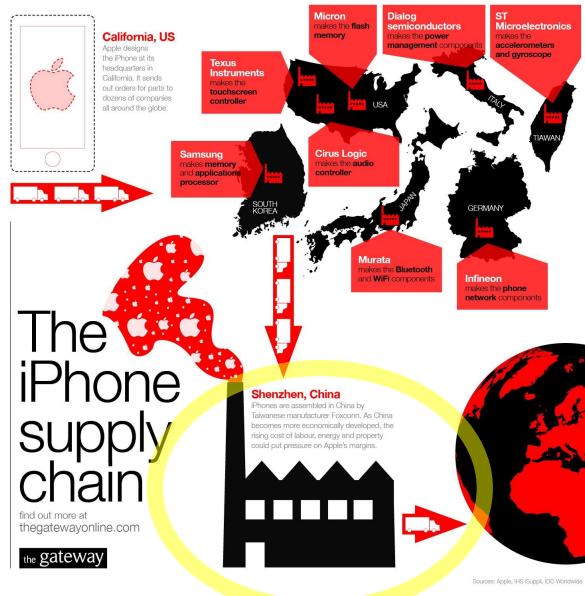
Source: https://www.containersolutions.ca/what-we-do/supply-chain-management/





Case Study: iPhone Xs

- Where is your iPhone Made?
- What happens in Shenzhen, China if there are any delays?
- How do you plan for problems?
 - Weather
 - Material shortages
 - Strikes



Source: https://www.containersolutions.ca/what-we-do/supply-chain-management/

FOX MIS



SCM Discussion

- Who works for a company which manufactures a product?
- What kind of product is it?
- What stuff do you need to make your product?
- Where do you get this stuff?
- What happens if they run out of this stuff?



Source: https://www.neurored.com/wp-content/uploads/2018/01/supply-chain-smartification-1030x824.png





Safety Stock – That's the Answer!!!

• What people in fulfillment see...



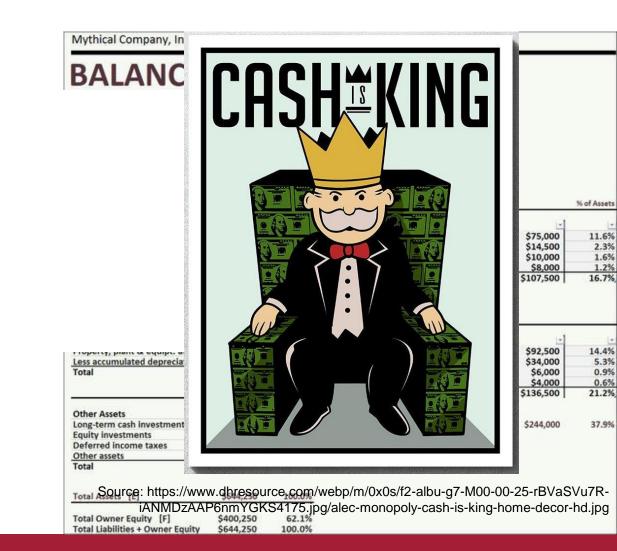
• What people in Accounting see...





What else could you do with this cash?

What do our accounting friends tell us?







Supply Chain Optimization

SCM Modules Support two functions:

- 1. Supply Chain Planning
 - Work Backwards
- 2. Supply Chain Execution
 - Efficient flow of products, information, & financing



Source: https://liquidplanner-wpengine.netdna-ssl.com/wp-content/uploads/2019/04/Supply-Chaingraphic.jpg





What is RFID

What is **RFID**?

- Radio Frequency Identification
- Wireless technology that lets you identify objects that have been fitted with special RF identification tags

What is RFID good for?

• Inventory control, access control...

How it works

- Antenna reads electromagnetic energy
- Can penetrate non-metallic solid objects



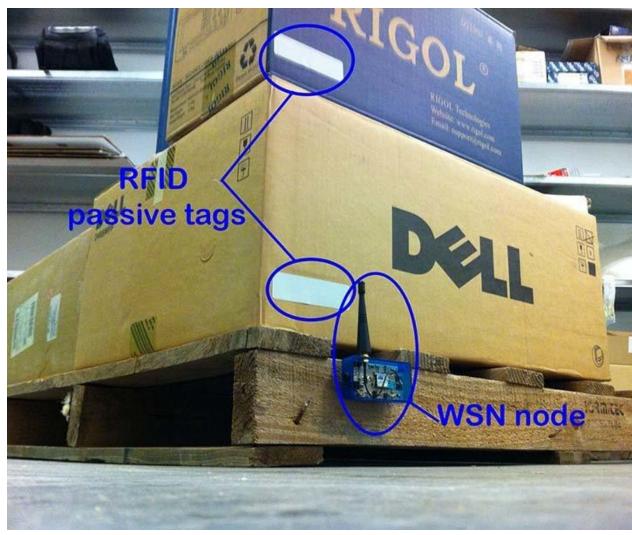
Source: https://journals.ala.org/index.php/ltr/article/viewFile/4514/5301/6514



RFID explained

The use of electromagnetic energy to transit energy between a reader (transceiver) and the tag (antenna).

- RFID tags can contain more information than bar codes.
- ✓ Tags are programmable
- Scanning can be done from greater distance.
- Passive tags—inexpensive, range of few feet.
- Active tags—more expensive, longer range



Source:_https://www.researchgate.net/profile/Jose_San_Jose_Vieco/publication/261430560/figure/fig1/A S:564991784742913@1511715946690/WSN-Node-and-RFID-tags-in-a-pallet.png





Case Study: Disney Magic Band Why Did Disney Invest \$1 Billion?

- Marketing Opportunities
- UX & CX
- Patron Tracking
 - Multiple Parks
 - Hotels
- Endless Possibilities!



Source:_https://media.wired.com/photos/593275a15c4fbd732b552d4a/master/w_1200,c_limit/disneymagi cband2_f.jpg





More to Come

Prepare with Readings & Videos before our next class!!! Exam 2 next week-end!