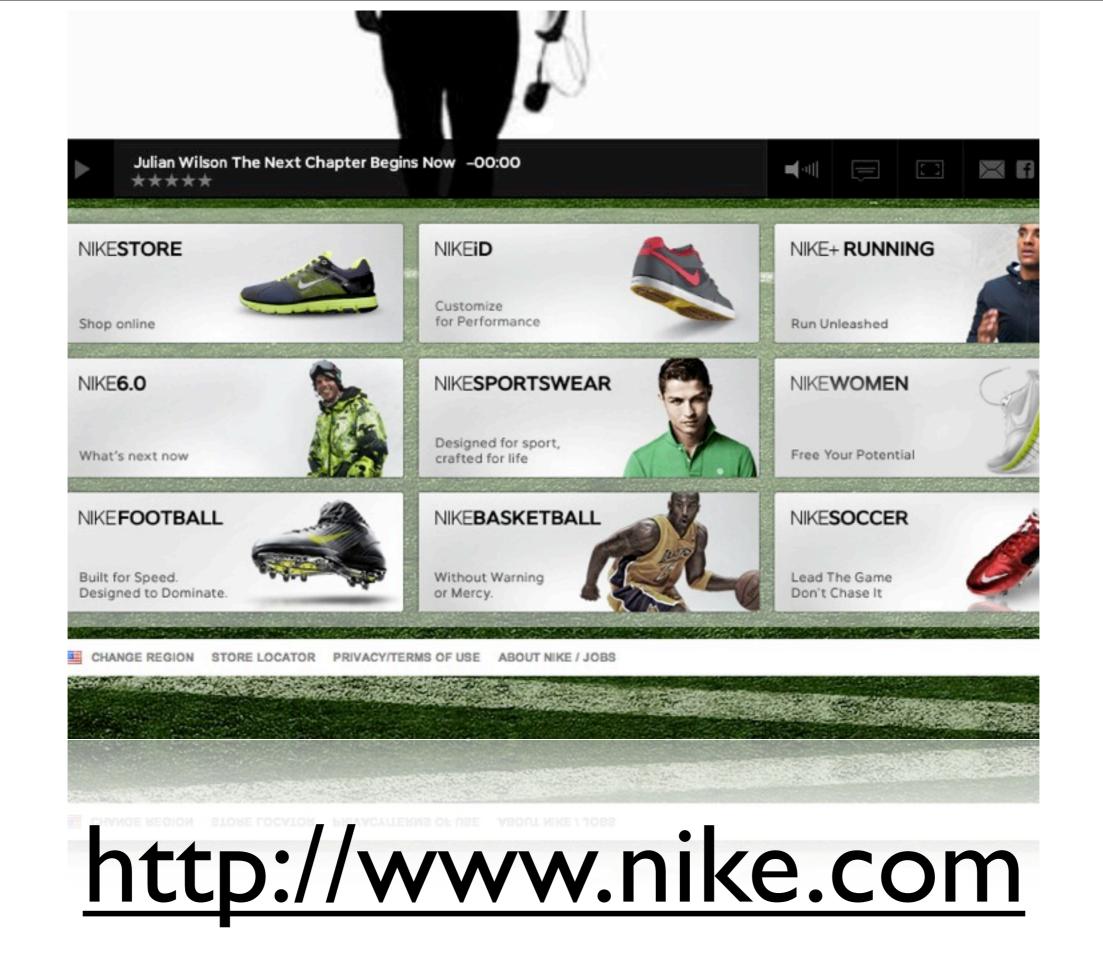
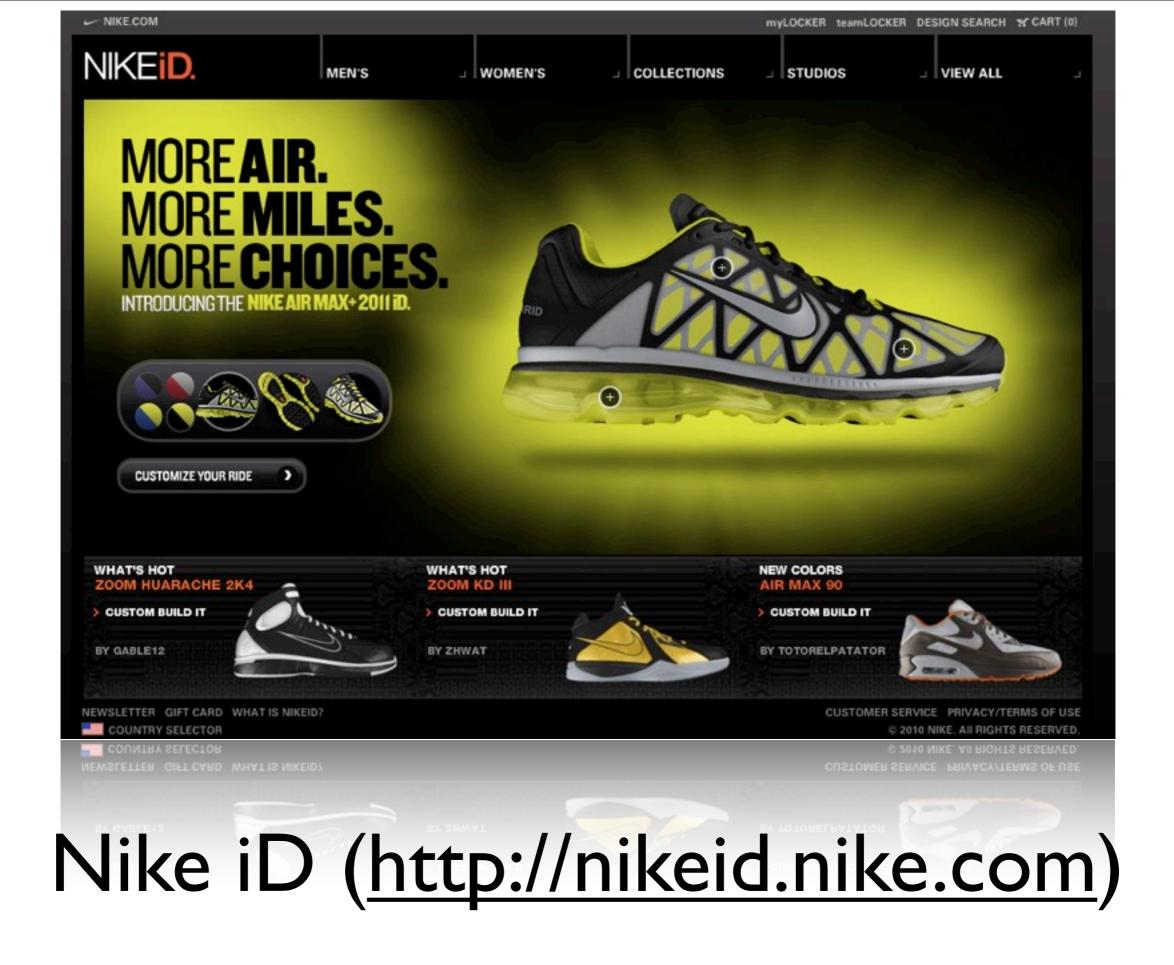
Nike.com

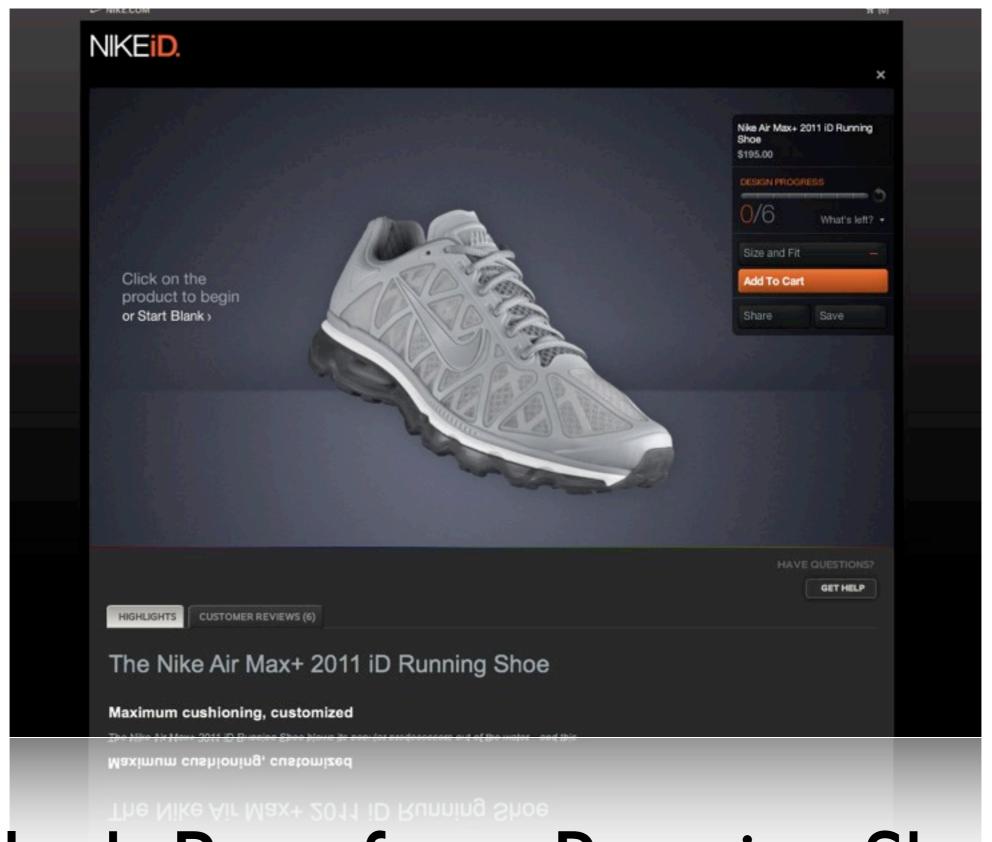
Mass Production, Customization & Mass Costumization

How Customization is Done Online

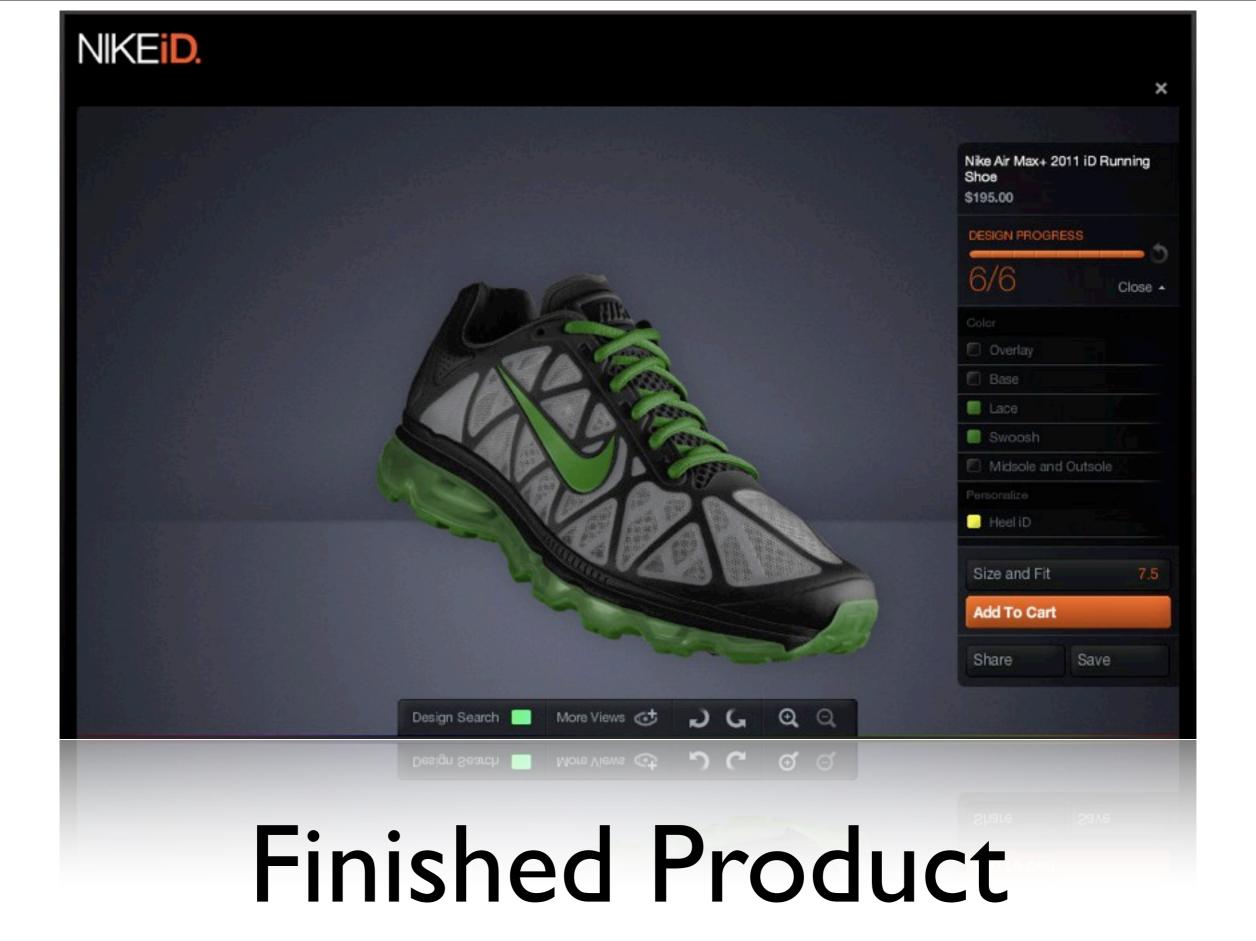
• The nike.com case of study







Blank Base for a Running Shoe



Customization

- Select size, color, personalized logo, etc.
- Review and submit order
- Get shipping information

Backend

- Order flows to production floor
- Personalized logos are programmed into the machine

End of line

- Shoes are inspected and packed
- Order is shipped to client

Build-to-Order

- A manufactoring process that starts with an order (usually customized)
- Once the order is paid for, the vendor starts fulfill it

Old as Commerce

- The build-to-order concept is old
- Was the only method of production until the Industrial Revolution

You need a pair of shoes...

- According to this concept
 - You need a pair of shoes
 - go to a shoe maker
 - take measurements
 - negotiate quality, style, price, etc.
 - pay in advance
 - the shoemaker buy the material and starts working

The Industrial Revolution

- Concept of dividing work into small parts
- Division of labor
 - work is simpler
 - require less training
 - allows for specialization
 - easier to automate

Build-to-Market

- Machines were invented to make products
- Build-to-market developed
 - Design standard products
 - Produce them
 - Store them
 - Sell them

Build-to-Market II

- The production of standard products drove the prices down
- Demand increased

Mass Production

- Companies produce large amout of standard products at low cost and then "pushes" them to the consumers
- Need for sale and marketing departments arose

Factories

- Increased competition
- Desire to reach new, wider, remote markets
- Creation of large factories
- Factory workers personally did not know the customer nor care about product quality

Products

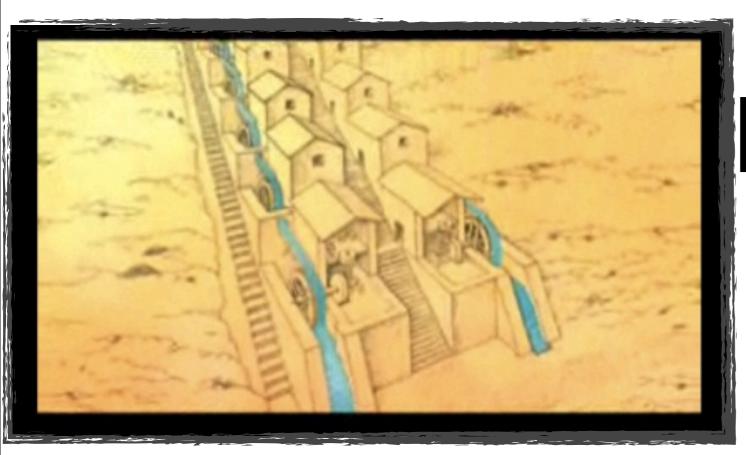
- Products are inexpensive
- Good enough to fuel demand
- This concept became the dominant one

Inventory

- Mass production also require the concept of intentory
- A place to store products to be sold
- Quantity is based on forecasted demand

History of Mass Production

 Henry Ford introduced mass production in the car industry



Production

 Ancient Rome had one of the first prototypes of industrialization. Learn more about mass production and the Roman water powered flour factory on The Science Channel's "What the Ancients Knew."

Venice - Arsenale

 L'Arsenale di Venezia ha anticipato di secoli il moderno concetto di fabbrica, intesa come complesso produttivo in cui maestranze specializzate eseguono in successione le singole operazioni di assemblaggio di un manufatto, lungo una catena di montaggio e utilizzando componenti standard. Rappresenta l'esempio più importante di grande complesso produttivo a struttura accentrata dell'economia preindustriale.

Arsenale

Source: Capolavori delle grandi civiltà. Venezia la citta sull'acqua

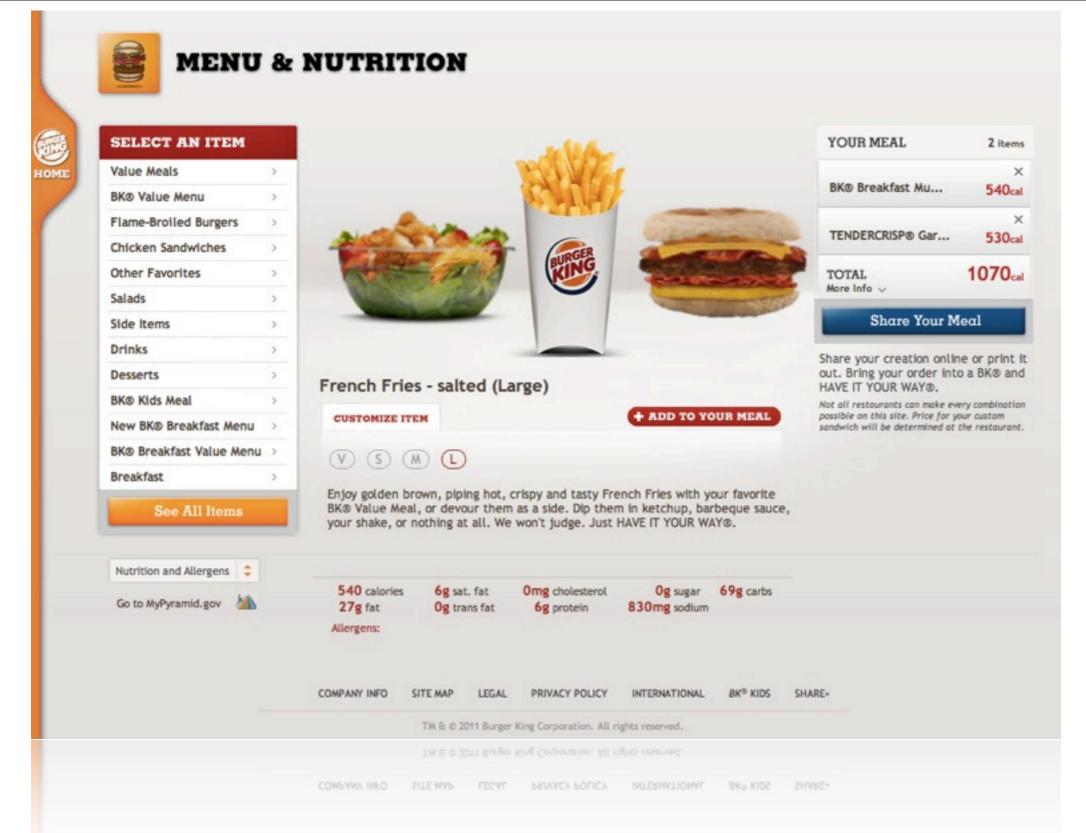
Arsenale



Source: Capolavori delle grandi civiltà. Venezia la citta sull'acqua

Customized Demand

- Demand for customized products was still there
- Small quantities could be produced (cars for instance)



Burger King's HAVE IT YOUR WAY



Personalize M&Ms http://www.mymms.com/utility.aspx

Mass Customization

- Provide customized products in large quantity
- Usually enanched by some kind of IT technology
- nike.com, bk.com, dell.com, ...

Mass Customization II

- Mass customization on a large scale is difficult to obtain
- understand what the customers (may) want
- if properly performed it can become a dominant model in many industries