What is a ‘new product’?

New-to-the-World Products
- Polaroid camera, in-line skates, Kevlar, word-processing software

New Category Entries (New to the company)
- Hewlett-Packard PCs, Hallmark gift items, Discover Card

Additions to Product Lines
- Line extensions or flankers

Product Improvements
- Frozen yogurt, Miller Lite, Windows 98, plain-paper fax

Repositionings
- Arm & Hammer baking soda

Alice Agogino, Sara Beckman, Nathan Shedroff: Sustainable Product Development
Product development process

- **Opportunity identification**
  - Market definition
  - Idea generation
  - Idea selection

- **Design**
  - Customer needs
  - Product positioning
  - Segmentation
  - Sales forecast
  - Engineering
  - Marketing mix

- **Testing**
  - Advertising testing
  - Product testing
  - Pretest and pre-launch
  - Test marketing

- **Introduction**
  - Launch planning
  - Launch tracking

- **Life cycle management**
  - Market response analysis
  - Competitive monitoring and defense
  - Innovation at maturity

Adapted from Pradeep K. Chintagunta
faculty.chicagob.edu/pradeep.chintagunta/teaching/37400/Session4/introductionstrategy.pdf

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Needs and Usability Assessment 09.04.08
User-centered design

User-centered design puts the desires and experiences of users at the heart of the design process by systematically engaging with them.
User-centered design

**Opportunity identification**
- Identify users, tasks, goals and ‘needs’

**Design**
- Assess competition
- Define features and requirements
- Create experience concept design(s)
- Develop prototype
- Evaluate prototype with potential users

**Testing**
- User research

**Usability testing**

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Needs and Usability Assessment 09.04.08
A list of UCD iterative design tasks

Set goals:
   - What do you plan to design, for whom?
   - Requirements (preferences, etc.)
“Needs” assessment
Summarize findings and decisions
Design a prototype
Evaluate, report
Implement changes
Evaluate, report

...and repeat as needed
But there are many processes...
Research and software

Agile

1. Define Requirements
2. Story finding/initial estimation
3. High Level Planning
4. Being Iteration N
5. Write story and scenario
6. Implement functionality and acceptance tests
7. Deploy
8. Quality Assurance
9. Stones Left to play?
10. System Testing
11. RELEASE

Waterfall

Requirements
Design
Implementation
Verification
Maintenance


dotnetjunkies.com/.../archive/category/1754.aspx

Needs and Usability Assessment 09.04.08
Stakeholders?
Stakeholders

Corporate managers
Product engineers
User research team
Product designers
Marketing team
Corporate partners/vendors
Customers / end users
Non-users
“Clients”
Stockholders
Advertisers
Etc....
User research

Who does it

Research specialist(s) on a design team
“Outsourcing” to specialized research group inside company
Consultant hired on a project-by-project basis
Designers with appreciation for user research

What is it called?

Usability
Human factors
User experience
“Voice of the customer”

Design research
Ethnography
User research
Design intervention: communication

Before research identifying stakeholder goals and constraints

During research reporting initial results and building empathy

After research is completed:
writing requirements, feature documents, use cases, personas, and scenarios
building empathy for ‘users’ among designers/builders
representing user perspective to decision-makers

Rosa Cabrero

"I need quick answers. How do you work in time for this stuff & still do everything else?"

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Needs and Usability Assessment 09.04.08
Design intervention: collaboration

Stakeholder “ride-alongs”
Interdisciplinary team activities
Contributing design ideas