4. Stakeholders

10 September 2008

Bob Glushko

Plan for ISSD Lecture #4

Who are we designing for?

Defining "Stakeholder"

Classifying stakeholders

Stakeholders in the Sitrep project

Who are we Designing for?

What does each of these words imply or assume about the design focus, or the relationship between the makers of something and its users?

- User
- Operator
- the "Functional Beneficiary"
- Customer
- Patient
- Client
- Buyer / purchaser
- Payer
- Investor
- "Champion"

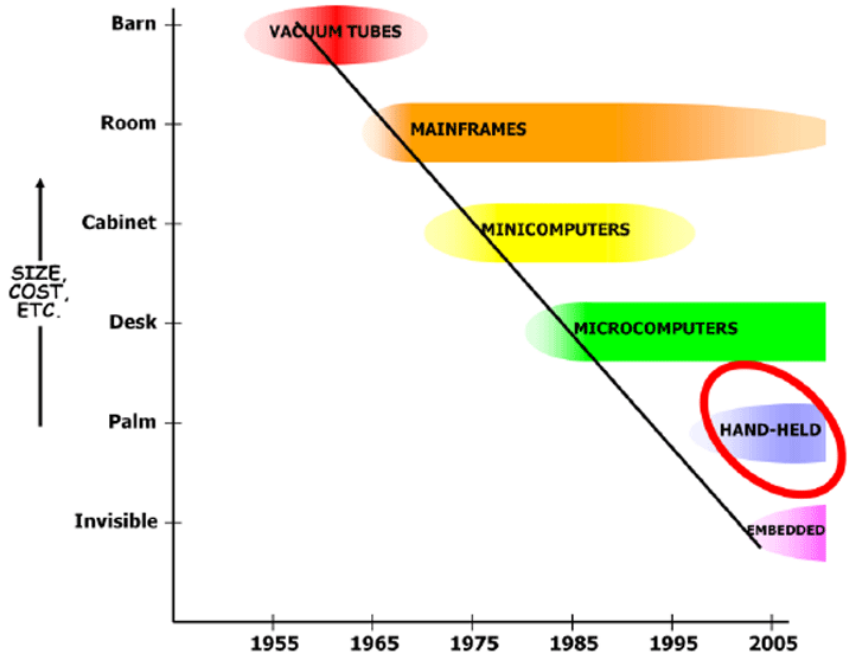
Design Questions and Stakeholders [1]

Will the sponsor like it? Is it in his interest to invest in it? Will it be put into effect?	Sponsor and financier.
Does it make the best use of available materials and components?	Suppliers.
Can it be made cheaply enough with available resources?	Producers.
Can it be distributed through available channels?	Distributors.

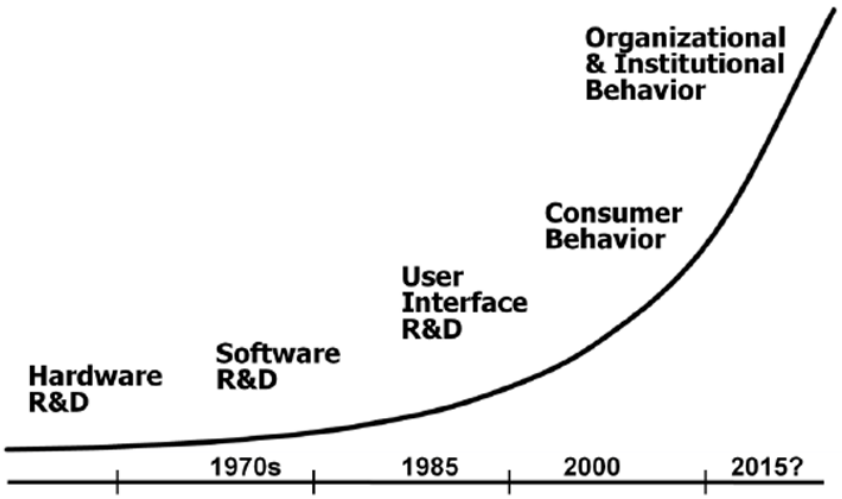
Design Questions and Stakeholders [2]

What appearance, performance, reliability etc. is required?	Consumers and sales organizations.
To what extent will it be compatible with, or competitive with, other products?	Other sponsors.
To what extent will it restructure the existing situation to create new demands, opportunities and problems?	Large scale system operators.
To what extent are its effects, and side-effects, acceptable to all concerned?	Political institutions and pressure groups.

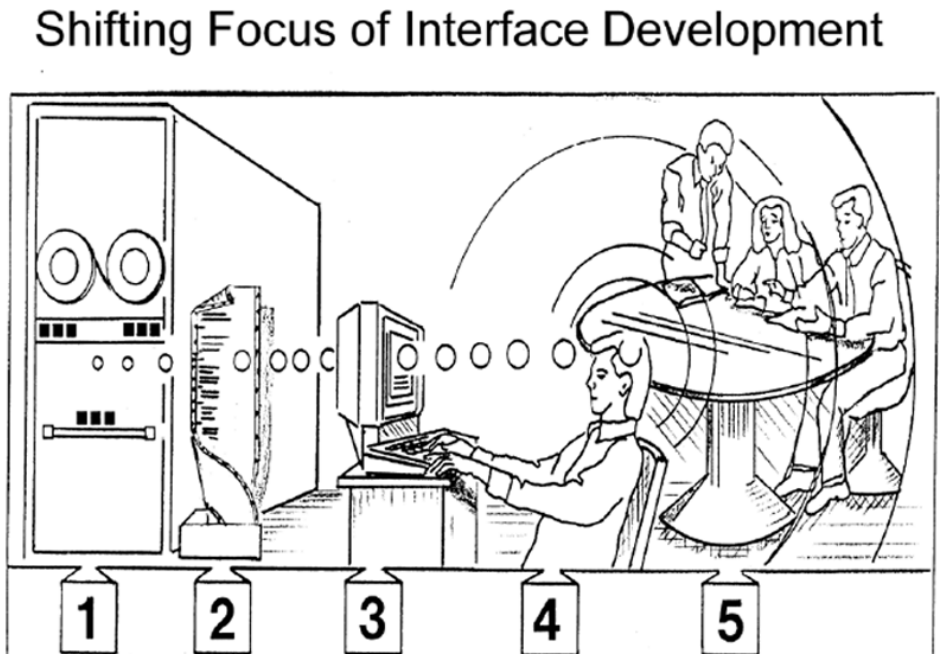
Generations of Computing Technology



Technology Changes the Design Context



Technology Changes the "User Interface" Context



From "Operators" to "Users" to "Stakeholders"

The first "users" of computers were data entry and operations personnel, who functioned almost as peripheral devices when doing their jobs

When computing technology became "personal" it also became discretionary, and it became more important to understand the goals and preferences of discretionary users

But while understanding the intended "user" of a system or service is necessary, it isn't always sufficient

There may be many different types of users, and many other groups of people who have a "stake" in the design and deployment of the product, system, or service

Defining "Stakeholder"

"the people who affect the success of your (software) product, and are affected by it" (O-i SD, p. 11)

"all the claimants inside and outside the firm who have a vested interest in the problem and its solution" (Mason & Mitroff, 1981)

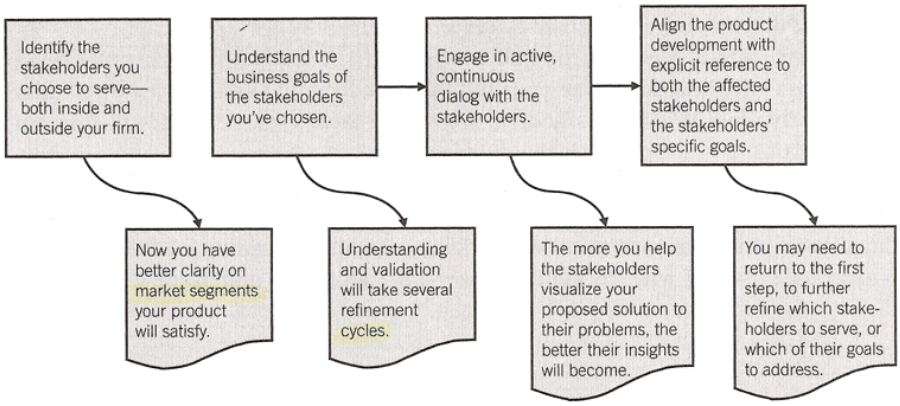
"any person or organization who can be positively or negatively impacted by, or cause an impact on the actions of a company" (Wikipedia)

John Mackey on Stakeholders (O-in SD, p 11)

"Sometimes what is in the best interest of one stakeholder may not be in the best interest of another stakeholder..."
"... as the CEO, I have to balance the various interests of the different constituents and stakeholders to create win, win, win scenarios..."
"... and that can sometimes be very difficult to do."

Stakeholder Conflicts

"Outside-In Design" and Stakeholders (O-i SD, p 12)



Identifying the Stakeholders: Why

So you design and develop something that meets someone's requirements

So you can make explicit what would otherwise be hidden decisions about features, functions, and priorities

To improve traceability (where did this requirement come from?) and impact analysis (who will care or be affected if we do this?)

Improve the effectiveness of communication with and among the stakeholders

Identifying the Stakeholders: How

Who should do it?

Approach 1: Start from the "project sponsor," ask "who is a stakeholder" and follow the links with a "diminishing returns" rule

Approach 2: Find who can answer the "design questions"

Caveat 1: The "organization chart" can not be counted on as a guide to identifying stakeholders

Caveat 2: There will often be "default" stakeholders that are easily ignored

Stakeholder Characteristics

Relationship to the thing being designed

Relationship to other stakeholders

Priority of their point of view

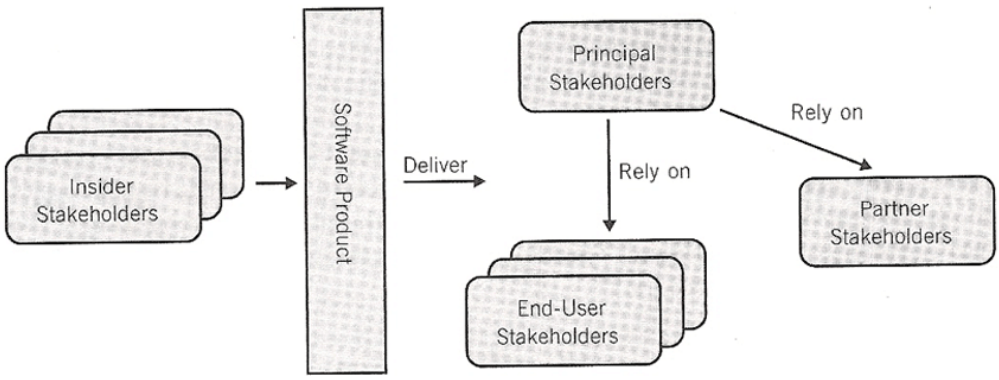
Stakeholder Classifications

These characteristics are implicitly or explicitly represented in stakeholder classifications, frameworks, or taxonomies (and there are too many of them)

The classifications reflect the design domain and context:

- The O-i SD framework is that of a software vendor building a product or platform for another customer
- The Sutcliffe taxonomy describes only the stakeholders inside the firm using the system, and reflects the "org chart" hierarchy
- Alexander's "onion" classifies stakeholders from an "inside the firm" perspective but also includes external ones

The Outside-In Classification (O-i SD, p 24)



Principal Stakeholders

PRINCIPAL stakeholders are the business people who sponsor the acquisition and use of the thing being designed

They focus on business value, not features or functions

They can be external in a customer or client organization or, when the design is for internal use, in the same firm as the designers

In this latter context the most important of the principal stakeholders is sometimes called the PRODUCT CHAMPION

End-User Stakeholders

END-USERS are the focus of user-centered design methods, and their needs are important

But they may be at odds with those of the principal stakeholders, depending on whether their use is:

- An essential use
- An optional or discretionary use
- Part of a job requirement

Partner Stakeholders

PARTNER stakeholders include people who support -- install, configure, customize, maintain -- the systems or end-users

They might be in the same firm as the users

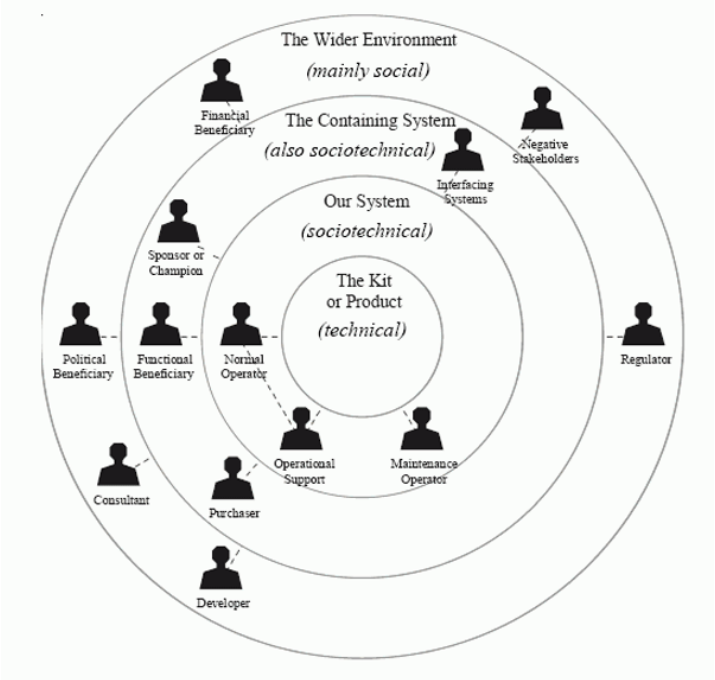
Or they might be more distant members of the "ecosystem" in which the product or service is deployed

Insider Stakeholders

INSIDER stakeholders are people in the company that is designing and developing the product or service

This category includes marketing, sales, finance, engineering, customer support, and other functions that "touch" the offering during its life cycle

The Stakeholder "Onion" (Alexander, 2005)



Peeling the Onion

"Rings" or "annuli" around the "kit or product" that represent "distance" from it

Each ring contains a set of named slots or roles, each of which has a distinct relationship to the thing being developed

"Our System" ring is equivalent to the "End-user" category in the O-i SD stakeholder classification

Sutcliffe's Taxonomy of System Stakeholders

PRIMARY stakeholders will directly use or interact with the system

SECONDARY stakeholders will not directly use or interact with the system, but will consume its outputs and depend on its operation for their own work

TERTIARY stakeholdrers who don't use the system's outputs at all, but make use of mediated information for planning and strategic control of the business

"Single-line" and "Double-line" Stakeholders

Most stakeholders will be "double-line" - because they will be affected by the design, they will be able to suggest requirements or constraints on it

Single line stakeholders are affected by designs, but have no (effective) influence on them

Surrogate stakeholders often emerge as people who are supposedly representing the concerns of single-line stakeholders, but their use can be problematic

Negative Stakeholders

A stakeholder role is negative when it is opposed to the successful completion or operation of the thing being developed

Employees can be negative stakeholders if they (incorrectly or correctly) perceive that the goal of a system is to eliminate, de-skill, or otherwise make their current jobs worse

Negative stakeholders can sometimes have disproprotionate influence if they use the press, politicians, the courts, or a sympathetic public to get more leverage

Negative internal stakeholders in high-technolog contexts can be especially detrimental or dangerous

NIMBYs are a common type of negative stakeholder

Negative Stakeholders at the Cal Stadium

Negative Inside Stakeholder Strikes SF

SFGate.com

S.F. officials locked out of computer network

Jaxon Van Derbeken, Chronicle Staff Writer

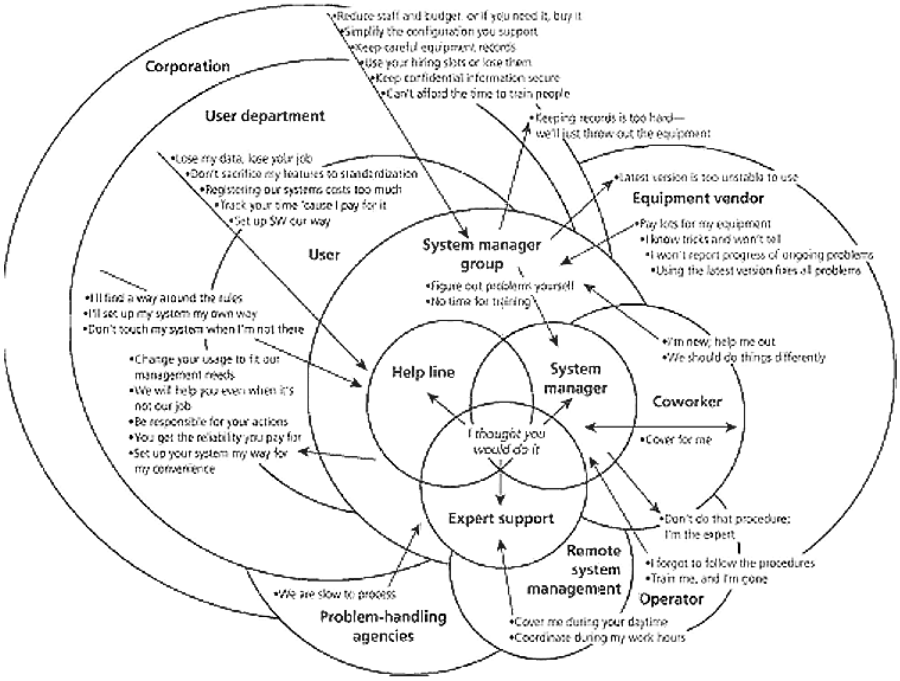
Tuesday, July 15, 2008

(07-14) 19:23 PDT SAN FRANCISCO -- A disgruntled city computer engineer has virtually commandeered San Francisco's new multimillion-dollar computer network, altering it to deny access to top administrators even as he sits in jail on $5 million bail, authorities said Monday.

Terry Childs, a 43-year-old computer network administrator who lives in Pittsburg, has been charged with four counts of computer tampering and is scheduled to be arraigned today.

Prosecutors say Childs, who works in the Department of Technology at a base salary of just over $126,000, tampered with the city's new FiberWAN (Wide Area Network), where records such as officials' e-mails, city payroll files, confidential law enforcement documents and jail inmates' bookings are stored.

Stakeholder Map



OCHA Sitrep Project

SITuation REPort:

- Internal or public document used by agencies involved in emergency response
- About the situation on the ground
- Response efforts
- Usually a semi-structured Word document distributed via email

OCHA Sitrep Project [1]

NATIONS UNIES

BUREAU DE LA COORDINATION DES AFFAIRES HUMANITAIRES

OCHA

UNITED NATIONS

OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS

Cyclone Nargis
Myanmar
OCHA Situation Report No. 10
14 May 2008

This situation report is based on information received from the UN Resident Coordinator's Office, Myanmar, UN agencies, UNDAC, regional humanitarian partners and media sources.

I. SITUATION IN MYANMAR

1. Cyclone Nargis struck Myanmar on 2 and 3 May 2008, making landfall in Ayeyarwady Division and directly hitting the country's largest city, Yangon. 40 townships in Yangon Division and 7 townships in Ayeyarwady Division remain on the Government's list of disaster areas.

2. Assessment teams have reported major damage in affected areas, particularly the low-lying delta region, where the Cyclone's impact was compounded by a storm surge. The official death toll now stands at 34,273, with 27,836 missing. Unofficial estimates are considerably higher. Based on the original Government figure of 975,858 persons affected three days after the disaster in the eight most seriously hit townships, the UN now estimates that between 1.6 and 2.5 million people are severely affected.

3. 22 agencies were undertaking assessments in 58 townships as of 13 May 2008. Priority townships for further assessments (where gaps in information have been identified) are Dedaye, Pyapon, Kyaiklat, Mawlamyinegyun, Wakema, and the southern part of Bogale. These same areas are also currently assessed as underserved by relief responses.

OCHA Sitrep Project [2]

III. INTERNATIONAL RESPONSE

7. In a letter to the UN Emergency Relief Coordinator on 13 May, the Permanent Representative of Myanmar to the United Nations indicated that his government had appealed to four neighbouring countries for assistance (Bangladesh, China, India and Thailand) and that 160 humanitarian relief personnel from these countries are expected to arrive in Myanmar shortly. The letter also states that an ASEAN Emergency Rapid Assessment Team (ERAT) is currently being assembled and will be travelling to Myanmar to assess critical needs within the next 48 hours.
8. Media reports indicate that Thai Prime Minister Samak Sundaravej travelled to Myanmar on 14 May to discuss issues related to the relief effort, including access for international relief workers.

Coordinated In-Country Response

9. A coordination centre is now operational in Labutta. Multi-sectoral coordination meetings are taking place on a daily basis, currently lead by UNDP. UNDP and WFP staff are currently assessing the feasibility of an operational centre in Bogale. UNDP is leading an initial coordination mechanism there for the time being.

Food Assistance

10. WVI reports that as of 14 May it has distributed a total of 78.05 MT of rice to 116,560 people in Yangon Division. On 13 May, WFP reported that it had dispatched enough food to reach 74,000 people, including thousands of children, with a first ration of either HEBs or rice.
11. ADRA has been operating in Labutta, Pyinsale, and Myaungmya since the tsunami, and since 9 May has been working with WFP in Labutta to distribute around 20 MT of rice daily to around 20,000 people. Cooking equipment has also been distributed (large facilities for the camps, to provide wet feeding) as well as 10,000 eating sets (plates, spoons, cups). A second shipment with similar equipment is currently on the road to the delta. Other NFIs and water treatment equipment will be sent in the coming days.

Logistics

12. The Myanmar authorities have requested that one day's notice be given for clearance of airlifts through Yangon International Airport.
13. The Cluster Lead continues to request partners to submit cargo forecast information for the establishment of a common transport service. An updated report on cargo flights that have arrived in Myanmar (as of 13 May) is available on the Cluster Website:

The ISchool Team

Nick Rabinowitz, Megan Finn, John Ward, Elisa Oreglia

First trip to New York, UN OCHA headquarters, to understand what doesn't work with Sitreps (March 2008)

Initial Questions

Who is impacted by sitreps?

Who writes them? Reads them? Uses them?

What is the hierarchy, as far as users are concerned?

OCHA Sitrep Stakeholders [1]

Approach 1: Start from the "project sponsor," ask "who is a stakeholder" and follow the links with a "diminishing returns" rule

Answer: “Sitreps are a fundamentally confused document… whose audience is everybody.”

- Public at large
- Governments (donor and local governments)
- UN and NGOs
- Civil Society
- Media
- OCHA staff

OCHA Sitrep Stakeholders [2]

Approach 2: Find who can answer the "design questions"

Caveat 1: The "organization chart" can not be counted on as a guide to identifying stakeholders

Caveat 2: There will often be "default" stakeholders that are easily ignored

First Round of Interviews (NY, March 2008)

Identified 3 key stakeholders:

- 1. OCHA operational staff (desk officers in NY and Geneva, field officers)
- 2. OCHA senior managers at HQ
- 3. Sitrep recipients

Second Round of Interviews (Geneva and Nairobi, August)

OCHA operational staff at field level

- Sitrep writers
- Information managers
- Head of Office

Sitrep recipients

- Donors at field level and HQ
- Other UN Agencies
- NGOs
- (Other Civil Society Organizations)
- (Local government)
- (Media)

Sitrep Stakeholder Map [1]

IBM Stakeholders Taxonomy		
PRINCIPAL STAKEHOLDERS		
Within OCHA	Headquarters/Senior Management	
Outside OCHA	Donors HQ	
END USER STAKEHOLDERS		
Within OCHA	Desk Officers in NY and Geneva	also Inside Stakeholders! And surrogate stakeholders)
	Field Officers	
Outside OCHA	Donors in the Field	
PARTNER STAKEHOLDERS		
Within OCHA	IT department	
	ReliefWeb	
Outside OCHA	Other UN Organization	
	NGOs	potentially negative stakeholders
	Other Civil Society Organizations	
	Local Government	

Sitrep Stakeholder Map [2]

Sutcliffe Taxonomy of System Stakeholders	
PRIMARY STAKEHOLDERS	
(use or interact directly with the system)	
Within OCHA	Field Officers
	(Desk Officers)
Outside OCHA	(Other UN Organizations)
	(NGOs)
SECONDARY STAKEHOLDERS	
(don't use system directly, but consume its outputs and depend on it for their own work)	
Within OCHA	Desk Officers
	ReliefWeb
	Donors in the Field
	(Donors HQ)
Outside OCHA	Other UN Organizations
	NGOs
	Other Civil Society Organizations
	Local Government
TERTIARY STAKEHOLDERS	
(make use of mediated info for planning and strategic control of the business)	
Within OCHA	Senior Management at HQ
Outside OCHA	Donors HQ, esp. big donors,
	Local Government
	Other UN Organizations' HQ

Sitrep Stakeholder Priorities

PRIORITY OF STAKEHOLDERS according to OCHA Senior Management	
1	Donors HQ
2	OCHA HQ/Senior Management
3	Donors in the Field
4	OCHA Desk and Field Officers
5	Other UN organizations
6	Everyone else, including NGOs

PRIORITY OF STAKEHOLDERS according to us	
1	OCHA Desk and Field Officers
2	Donors (still haven't decided if HQ or field donors have priority)
3	Other UN Organizations AND NGOs (treated as equals)
4	OCHA HQ/Senior Management

Readings for 15 September

Carl Kessler & John Sweitzer, Chapter 3 – Understanding organizational context, Outside-in Software Development

James Lentz & Terry Bleizeffer, “IT ecosystems: Evolved complexity and unintelligent design,” ACM CHIMIT 2007

Fred Brooks, “No silver bullet: Essence and accidents of software,” Computer Magazine, April 1987.

Colin Potts, “Invented requirements and imagined customers: Requirements engineering for off-the-shelf software,” Second IEEE International Symposium on Requirements Engineering (RE'95)