

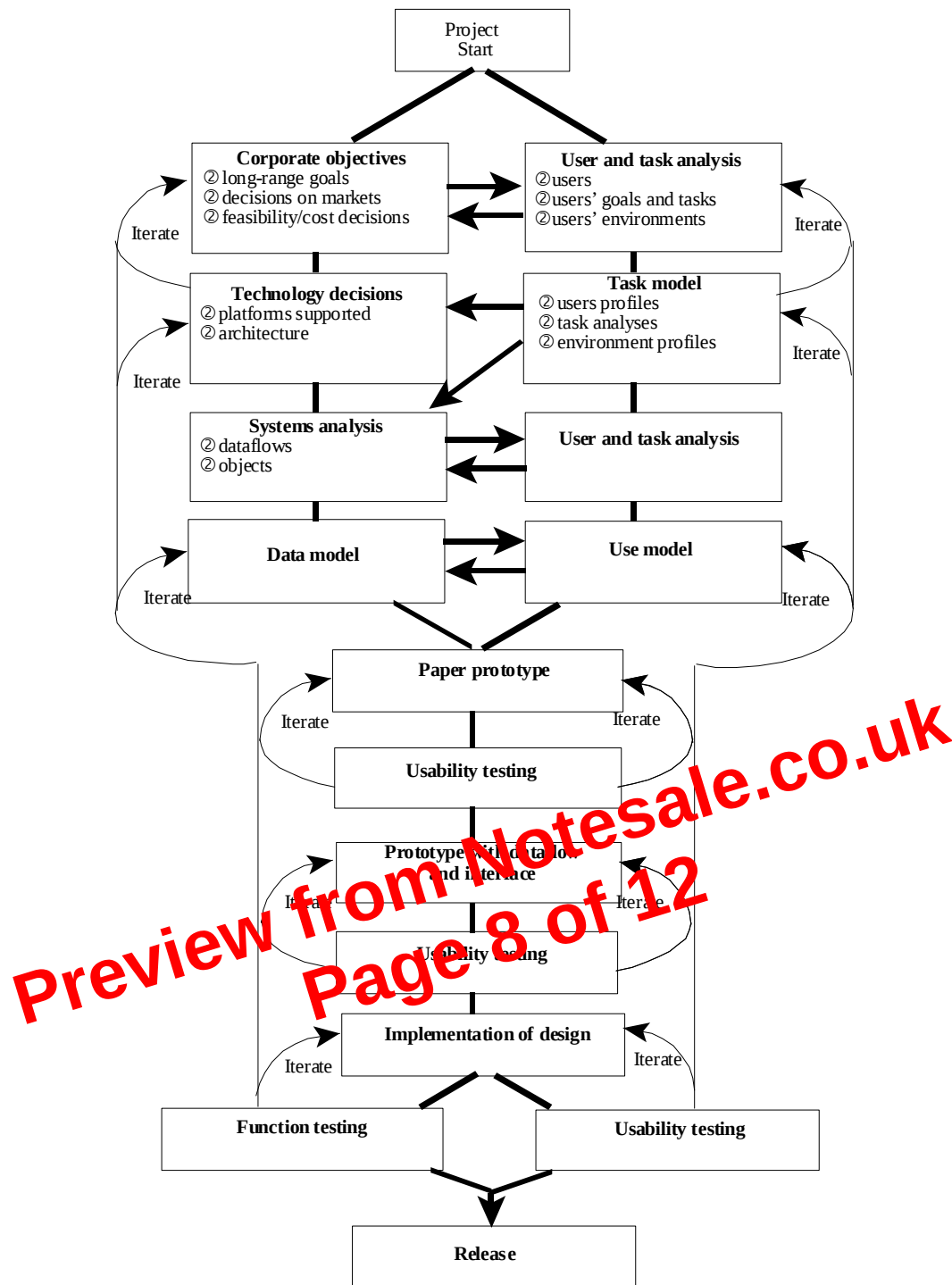


Figure 5. Interface and Systems Development Hackos and Redish [1998]

4.3.1 The Williges et al HCI focused life cycle approach

Figure 4 depicts a generalised flow diagram of the iterative design process for the development of the software interface, as proposed by Williges et al. [1987]. The model consists of three phases: the initial design stage in which the software interface is specified; a formative evaluation stage during which the interface evolves; and a summative evaluation stage in which the resulting system of the formative evaluation stage is tested:

- The initial design stage consists of the following six phases: determining design objectives; task-function analysis; focus on users; dialogue design guidelines; structured walk-through; and initial design modifications (a feedback loop to refine the design (dotted line in Figure 4)).

7. CONCLUSION AND PROPOSAL

In order for IS development to stay relevant and deliver systems fitting the demand of the current business environment, our research indicates that there is a dire need for the establishment of a unified process to the development of ISs, including all of the components identified in Figure 3. In order to meet these demands the exiting models should be enhanced to bridge the usability gap and map seamlessly to contemporary business environments.

We believe that many of the shortcomings of the development models could be catered for by making the end-user of the system a primary element in the entire process, and include explicit guidelines for the inclusion of other external issues such as laws and regulations, human rights issues (including accessibility), the abilities and skills of the human resource complement of the IT department, the supplier chain and availability of technology, et cetera. We argue that in the requirements/analysis and design phases the following issues should, for example, as a minimum consideration be catered for: Corporate issues such as competition, local economic climate and local domestic environments; political climate both locally and internationally; legal issues both on national and international level; acts and regulations that could affect the business; human rights issues e.g. accessibility laws/standards, access to information, etc.; the user context (geographical, cultural, socio-economic, educational, etc.); procurement issues; et cetera.

We further argue that most of the stakeholders identified in Figure 3, should ideally be involved in the formative and summative evaluation of the proposed and delivered system. After all, if a system does not meet regulatory standards, violates human rights issues, does not meet the exact requirements of the customers, needs very specialised equipment not readily available from suppliers, is not cost effective in terms of business transactions, do not meet the data or information requirements it is intended for, and cannot be developed by means of available skills or technology, how can it be successful? If these aspects are important, they should be explicitly catered for in the systems development model. Extensive further research would be required to establish processes and procedure to achieve this.

8. REFERENCES

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