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**Prototyping: Alternative Systems Development Methodology Summary**

**Important Points from Article**

* “Prototyping is based on building a model a model of the system to be developed. The initial model should include the major program modules, the data base, screens, reports and inputs and outputs that the system will use for communicating with other, interface systems.” [159]
* “First, prototyping is seen as a model of the final system, much like in the automobile industry where prototype or model cars are built and tested before full-scale production is attempted.” [159]
* “The prototype is then a shell of the final system with no calculations and data behind the interfaces.” [159]
* “Prototyping provides a ‘hands-on’ communication tool to allow the analyst to determine user needs and ensure ongoing communication throughout the development process, thus ensuring that the system is the ‘right’ one for the user.” [159]
* “Once they [the users] begin to use a system, however, it is clear to them where the problems lie.” [160]
* “There are two major types of prototyping environments. One is a complete and integrated application-generator environment or automated development environment… A prototyping toolkit comprises the other environment. The toolkit is a collection of unintegrated tools that aid the rapid building of the separate pieces of a system…” [160]
* “One confusion in defining prototyping arises from the existence of two distinct types of prototyping that are used by various companies. These two basic approaches to prototyping are iterative and throwaway.” [161]
* “All of these positive attributes make prototyping sound like the system development dream, like the answer to all analyst’s and user’s problems. Indeed, many organizations have adapted some use of prototyping within their development life-cycle. However, there is a downside to prototyping.” [161]
* “Some form of prototyping may be used in the development of all systems from large and complex to small and simple. Determination of whether to use the iterative prototyping technique, which will evolve into the final system, or the throwaway type, which may be used primarily to model the user interfaces, however, is dependent on several variables.” [162]
* “Type I or type II prototyping can be effectively used when developing information systems; the key to success is carefully determining which prototype type to use and then following a well defined methodology.” [163]
* “Human factor factors in the systems and the issue of ‘user friendliness’ or usability’ has been recognized recently as a determinant of system success. Just because a system is technically sound does not mean that it will be easy to learn and use.” [163]
* “Consistent design of function keys and options will lead to ease of learning and use. Switching and interchanging will lead to frustration and abandonment of the system.” [163]

**Things I Didn't Agree With**

“Was type I (iterative) prototyping with a 4GL the wrong choice for the New Jersey Division of Motor Vehicles? Given the volume of transactions, and the development team’s inexperience, the answer must be yes.” [164]

I don’t agree that it was the wrong choice for the New Jersey Division of Motor Vehicles. I think the wrong choice was the choice of language and system they set up. They could have still built a good system using type I prototyping in a different language. It would have been able to handle the load from the traffic.

**Things I Did Not Understand**

I understood the entire article.