Discussion-7 Policy

Discussion Topic:

Describe several situations, imagined or actual, where good policy intentions could work in your favor, or go astray. In your overall estimation, should there be more or less government presence on the internet? Give some concrete examples, especially in business situations. Use real-life examples where possible.

My Post:

Hello Class,

As a computer science student aspiring to a career in software engineering and AI systems development, my interest is in understanding how government policies impact the development and implementation of software and AI systems. In the last few decades, the government has tried to regulate this space with some success. However, government policies, often formulated with the best intentions, can sometimes stimulate progress and improve security, while at other times, they can inadvertently create unnecessary obstacles and have unintended consequences. This post explores this relationship further, looking at two different policies and their impacts on the software and AI industries.

The U.S. has promoted the software engineering industry and now the AI industry, allowing them to flourish. This is done by implementing policies that promote efficiency, transparency, and security, not only within the private sector but also within the federal government itself. An example of this policy is the Federal Source Code Policy, outlined in OMB memorandum M-16-21 (Digital Gov., n.d.). The policy objective is to promote the reuse of and provide public access to custom-developed federal source code. The memorandum mandates that new source code developed for or by the federal government should be made available for sharing and reuse across all federal agencies. This promotes efficiency by reducing the need for duplicative software across different government agencies, and in the process saving taxpayer money. By making code accessible, it also promotes transparency in government operations and allows for scrutiny and code review, leading to better quality and more secure software.

On the other hand, government policies, despite their good intentions, can inadvertently create challenges, increase costs, and be an obstacle to innovation. These negative impacts are often the result of trying to control rapid technological change by implementing overly rigid and complex regulations. An example of this is the General Data Protection Regulation (GDPR) from the E.U., which has global implications for technology companies, including U.S. software engineering and AI companies (Qodo, n.d.). The regulatory goal is to protect the personal data and privacy of EU citizens. GDPR regulates the controls over the collection, processing, and storage of personal information. Many developers lack familiarity with GDPR complex legal requirements, which poses considerable challenges for developers to develop applications rapidly and for deploying them. Additionally, this has substantial financial implications as it takes longer to develop and deploy applications. Research indicates that GDPR has led to a notable increase in the cost of data for businesses in the EU (Wash, 2024). This financial cost increase can divert resources away from innovation and research, and development.

To summarize, government policies can impact the software engineering and AI industries significantly, acting as both powerful accelerators and obstacles to innovation. As shown by the Federal Source Code Policy, which can improve efficiency, transparency, and security, and the GDPR, which addresses data privacy but adds substantial costs, slowing down development, and diverting resources from innovation. Ultimately, government policies need to be carefully designed and implemented, as they need to balance trade-offs between promoting technological advancement and ensuring responsible development.

-Alex

References:

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