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Information Flow*

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Open Standards - Open Source

The Business, Legal, and Technical Challenges Ahead

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In association with



UNIVERSITY of ST. THOMAS

An opening thought experiment

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An opening thought experiment

- ❑ *what functions and capabilities of an operating system are taken for granted today which were virtually unimaginable 15-20 years ago?*
- ❑ **I don't know the answer myself, but I am going to bet that there are quite a few things operating systems are routinely doing today which we didn't realize they would be doing back then.**

An opening thought experiment

- ❑ *what functions and capabilities of an operating system are taken for granted today which were virtually unimaginable 15-20 years ago?*
- ❑ **And so, what things will operating systems be doing a decade or so hence that we can't imagine now? Again, we don't know the exact answer; all we can say is that we need to organize ourselves in such a way as to make the continual development of operating systems possible, easy, economic, and stimulus to continual creativity.**

An opening thought experiment

- ❑ *what functions and capabilities of an operating system are taken for granted today which were virtually unimaginable 15-20 years ago?*
- ❑ **It seems likely that the best such organization (industry structure) is the one that contains the fewest internal barriers and contains the most flexibility. Open Source, as I understand it, seems to fill that requirement (cf: the Law of Requisite Variety from system theory).**

Another Question

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- ❑ *What value systems seem to be in collision regarding the question of Open vs. Proprietary Source Code?*
- ❑ **Paradoxically, there may be relatively few short-term commercial arguments for Open Source. It is natural that an organization would want to protect innovations of its own making: the potential financial leverage of such innovations is very high. The need to recover development costs is continual and intense. There is continuing fear that someone else will create some code that leapfrogs everybody, and it seems foolish to trust that if someone else does create such code, they will readily share it with everyone.**

Another Question

- ❑ ***What value systems seem to be in collision regarding the question of Open vs. Proprietary Source Code?***
- ❑ **The problem is that what may make sense for the industry may not make sense for individual organizations. Individual organizations experience an imperative to pursue their direct, immediate interests. (Scott and Hart: “The Organizational Imperative”) Organizations develop tacit theories of their survival requirements to justify what appears from the outside to be greed and selfishness.**

Observation

- ❑ ***In a “six sigma” world, organizations striving for such levels of excellence are not notable for their willingness to give up advantages, possibly compromise their competitive position, etc.***

Observation

- ***while we know a great deal about “high performing systems” (Tom Peters and others) we do not know as much about “high performing industries.”***
 - **Indeed , we live in a capitalist society which defines a high performing industry only in terms of economic laws and relationships, and encourages, even mandates, an “every company for itself” mentality.**

Observation

- ❑ ***Those who are seeking an industry structure of Open Standards and Open Sourcing may be more knowledgeable about the technical facts and requirements than they are about the social and psychological facts and requirements that are involved.***
 - **Moreover, no matter how technically compelling the Open Source argument, that will not by itself overturn social and psychological as well as economic reasons for a proprietary environment.**

Problem of Leadership

- ❑ ***The Open Source industry scenario is a problem of leadership, as much or more than it is a problem of hardware and software.***
 - **As long as Linux is permitted to just evolve as it will, perhaps leadership is not needed. But if we intend to get the industry to evolve in a particular way, with particular norms and structures, that is when effective leadership becomes necessary.**
- ❑ ***This is especially true if some of the industry giants, who are in favor of proprietary operating systems, have declared Linux to be their number one problem.***

Observation

- ❑ ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***

Observation and Implications

- ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***
 - **Moreover, industry leadership may need governmental support. The thought of a regulated IT/IS industry is probably anathema to most professionals. NSF and other knowledgeable agencies should play an active role.**

Observation and Implications

- ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***
 - **Attention should focus on making the “business case” as well as the “social responsibility case” for Open Source. The “technological case” isn’t enough.**

Observation and Implications

- ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***
 - **Conferences and other forums should be continually held to explore the issues. Companies which favor proprietary structures and policies should be given an opportunity to be heard.**

Observation and Implications

- ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***
 - **Congressional testimony on the issues should be given and repeated on a continuing basis.**

Observation and Implications

- ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***
 - **Research on desirable industry structures should be a top priority. Business Schools and Engineering Schools should be involved. Analogues from other industries should be sought. In particular, modes of “inter-company leadership” should be sought.**

Observation and Implications

- ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***
 - **The Public Administration and Political Science fields have historically concerned themselves with “industry leadership” more than has the field of Business Administration. “Transformational leadership,” as popularized by James McGregor Burns, a political scientist, drew its examples from trans-organizational environments. It is quite relevant to the IT/IS situation at present. Similarly, Ronald Heifetz’ recent book, “leadership without Easy Answers” is concerned with inter-organizational problems.**

Observation and Implications

- ***Observation: Industry leadership on behalf of Open Standards/Open Source is complex, not well-understood, and must be seen in a time frame of at least ten years.***
- **All of these actions should be conceived and conducted on an international basis.**

Observation

- ❑ ***This kind of industry-scale structural thinking and leadership tends not to be what those who adhere to what has been called “the Hacker Ethic” are good at and have a taste for.***

Observation

- ❑ ***If such industry-scale leadership does not occur, however, operating systems will remain in or default to the proprietary mode. Today's industry giants will be the objects of continuing criticism, industrial espionage, and adversarial regulation. Their organizations will not be enjoyable places to work. The promise of Open Standards and Open Source will not be realized. Today's leaders of the movement will be embittered and disposed to pull back from leadership positions.***



Strategy

- ***The only strategy I can see is a positive vision of what is desired, and a set of strategies to realize that vision, such as those sketched above, and a willingness to commit for quite a long period of time.***


Panelist Introduction

- ❑ Dr. Ken Goodpaster - University of St. Thomas
- ❑ Dr. Peter Vaill - University of St. Thomas
- ➔ ❑ Malcolm Reid - Medtronic
- ❑ Tony Stanco, The Center for Open Source & Government, and Cyber Security Policy and Research Institute, The George Washington University

Social and Ethical Issues

- ❑ Quality Issues
 - Does it conform to expectations?
 - Is it safe and efficacious?
- ❑ Ownership issues
 - Have we inadvertently stepped over someone's intellectual property line? How do we assure ourselves that the code has clear title?
- ❑ Organizational issues
 - How do we emulate OS methods and culture on development projects in our organization?
 - Are OS developers taking time away from their real jobs?

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Social and Ethical Panel

Questions and Answers and
Discussion

Adjourn for the Day

- ❑ Thanks for your participation
- ❑ Tomorrow we'll finish up with the Legal and Synthesis Panels
- ❑ But don't forget tonight's dinner
 - 5:30 pm: Buses to Jonathan Padleford
 - 6:00 pm: Dinner cruise
 - 9:00 pm: Buses BACK to campus