TITLE: "A COLLEGE CURRICULUM FOR IRM"

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Since 1971: *"Software for the finest computer - the Mind"*

"Only when the systems engineer can walk in the moccasins of the user does the engineer have a right to design a system for the user."
- Bryce's Law

INTRODUCTION

Our Bryce's Law is suggestive of a growing problem in the field of Information Resource Management (IRM), namely that we have far too few people who understand and appreciate the business of our end users. As such, they are not being adequately serviced and left to fend for themselves. As I tour and give lectures on IRM, I am often asked about the types of skills required for people to work in this area. I am also asked how well our colleges and universities are preparing the next generation of workers. First, let me begin by stating that the programs offered in the universities are a reflection of most I.T. departments today. As such, it should come as no surprise to find the emphasis is on programming and not on total systems. This has left a void for people who can assimilate a business and develop systems to serve it. Sure, we now have plenty of programmers, but very few people who can "put it all together." This is not surprising for schools specializing in Computer Science, but it is a bit disconcerting to see business schools dropping the ball here.

A significant flaw with the current curriculum in most schools is that they approach the subject backwards. Instead of providing an overview of systems concepts, they usually begin with an introduction to computers and programming. For example, many universities begin with a course in a programming language, such as BASIC or C. In many cases, they do not even teach the philosophy of programming, only how to code. This approach is indicative of a basic problem in student development; they are teaching them to be detailists as opposed to conceptualists. Detailists are fine for programming, but lousy for systems work.

The trend should be reversed. The following is a model of an IRM curriculum we believe should be followed, whether at the university level or commercially.

- The 100 level represents an introductory overview of the subject.
- The 200 level is used to present theoretical discussions supported by examples.
- The 300 level puts theory into practice by providing the student with case studies including problems for them to solve.
- The 400 level represents the use of commercially available tools and techniques for the student to learn as part of their portfolio. These should all be treated as electives based on the student's interests.

IRM CURRICULUM

101 - IRM Concepts and Philosophies

201 - Enterprise Engineering - principles & practices

301 - Enterprise Engineering Case Studies

401 - Enterprise Engineering Tools

202 - Information Systems Engineering - principles & practices (includes Software Engineering)

302 - Systems Engineering Case Studies

402 - Systems Engineering Tools

303 - Software Engineering Case Studies

403 - Software Engineering Tools

404 - Languages

203 - Data Base Engineering - principles & practices

304 - Data Engineering Case Studies

405 - Data Engineering Tools

305 - Data Base Administration Case Studies

406 - File Management Tools (including DBMS)

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306 - Data Communications Case Studies

407 - Data Communications Tools

204 - Project Management - principles & practices

307 - Project Management Case Studies

408 - Project Management Tools

205 - Computer Operations - principles & practices

Although computer operations may fall under the realm of computer sciences, some basic courses are required to give the student an appreciation of the subject.

CONCLUSION

To widen the student's perspective, courses in business, management, economics, communications, engineering, philosophy and other liberal arts courses should be added to the curriculum. The intent is to teach the student how to conceptualize, think creatively, and solve problems.

All of this means greater participation in academic affairs by the corporate sector. Without a formal link between the two, the universities will not produce the type and caliber of students needed by corporations. Government should take the lead in this area and provide companies with tax incentives for sponsoring student internship programs, and to vendors by equipping the universities with the latest technology, both hardware and software.

Understand this, with the passing of each year more and more systems people are retiring from the work force and taking with them the knowledge of corporate systems. Now the big question: Will the next generation be able to take their place or will they only be able to produce chunks of code?

END

About the Author

Tim Bryce is the Managing Director of M. Bryce & Associates (MBA) of Palm Harbor, Florida and has 30 years of experience in the field of Information Resource Management (IRM). He is available for training and consulting on an international basis.

"PRIDE" Special Subject Bulletins can be found at:

http://www.phmainstreet.com/mba/mbass.htm

They are also available through the "PRIDE Methodologies for IRM Discussion Group" at:

http://groups.yahoo.com/group/mbapride/

You are welcome to join this group if you are so inclined.

The "Management Visions" Internet audio broadcast is available at:

http://www.phmainstreet.com/mba/mv.htm

Also, be sure to read Tim's Blog at:

http://blogs.ittoolbox.com/pm/irm/