

A Rose By Any Other Name? The change from ‘industrial dynamics’ to ‘system dynamics’ and its deeper significance for the field

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Note: A slightly amended version of his paper will be submitted to the *System Dynamics Review*, with the aim of appearing in 2027. If it does so then it is likely to re-titled:

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This presents it as a pendant piece to:

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ABSTRACT

This paper looks at the system dynamics field’s key name change. It does this using the documentary sources available. What emerges is that this change is actually a secondary issue, something that lagged behind a more significant development: a growing understanding of the field’s reach. As early as 1961, when Forrester and his research team were taking the ideas of ‘industrial dynamics’ and putting them to work, they were collectively coming to realise that those ideas had purchase well beyond industrial applications. This led to a questioning of, and increasing discomfort with, the original name. By 1968 there was a much greater understanding of the breadth of application of the field’s ideas, because they had had time to ‘flower and bear fruit’. The clearest statement of this is the book ‘Principles of Systems’. The main conclusion is that when the name ‘system dynamics’ finally appeared in 1970 it had a much deeper significance: it reflected this changed understanding. There are three further conclusions. First, the applicability and potential of Forrester’s ideas were not fully appreciated in the 1950s. In fact it took some years of work for many researchers to explore, clarify and develop them, and to grasp their

versatility and hence their reach. A second conclusion is that the field could then be viewed (albeit implicitly) as a systems science approach. Third, it is Forrester's first two books taken together that represent his key statement of the field's ideas techniques and aspirations. The present name – 'System Dynamics' - reflects this.