

Ten principles for effective tinkering

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The trouble with existing design methods



Planned outcomes



Uncertain outcomes



Open, social and
unpredictable

connectivism

social constructivism

it ain't what you do...

constructionism

andragogy

heutagogy

Another way

Engineering vs bricolage



Surfing the adjacent
possible

Great exaptations



1. Do not design - just build



http://commons.wikimedia.org/wiki/File:Lego_Color_Bricks.jpg
<http://creativecommons.org/licenses/by-sa/2.0/deed.en>

2. Start with pieces that are fully formed and useful

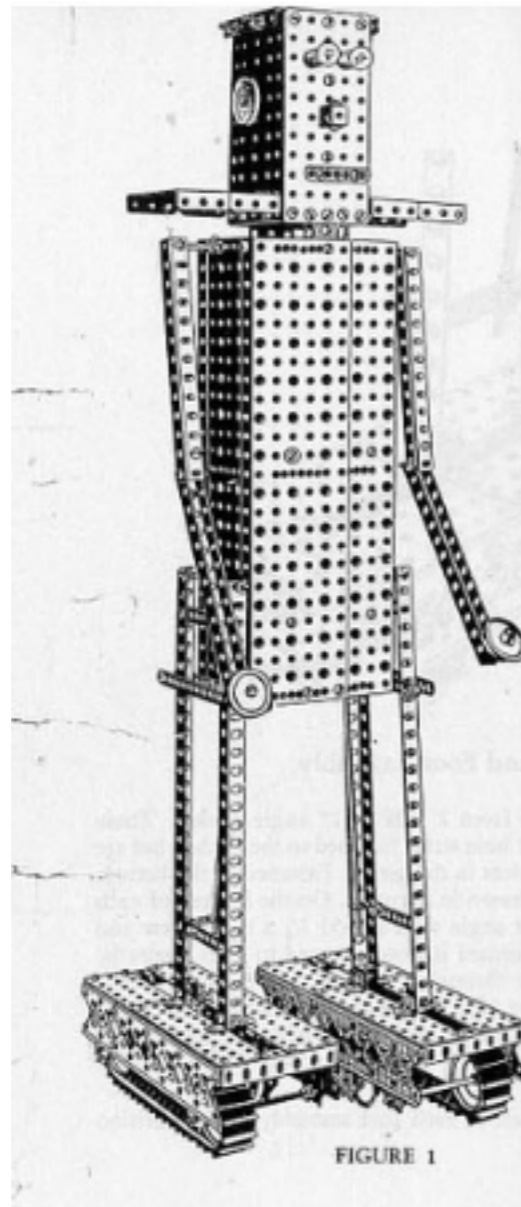


FIGURE 1

Models Built with No. 12-1/2 Erector

The Set that Builds the Mysterious Walking Robot

Instructions for Building The Mysterious Walking Robot Model

For many years, scientists all over the world have tried to build a robot or walking man. Now with your 12 1/2 Erector set or by purchasing enough additional parts to your smaller set, you can build a walking man.

Before starting to build the model you should become familiar with the various Erector parts and methods of assembly. The numbers (CH, AA, C, B, A, etc.,) referred to in this description and on the diagrams are called trade numbers. Trade numbers and pictures of the parts can be found in the index of your Erector manual.

Figure 1 shows the front view of the completed model. Figure 2 shows the rear view of the model. Study these, as well as all the other views very carefully.

As in all construction and model building it is best to start with small assemblies and build up to the final, completed model.

The first sub-assembly to build is shown in Figure 3.

THE A. C. GILBERT CO., NEW HAVEN, CONN., U.S.A.

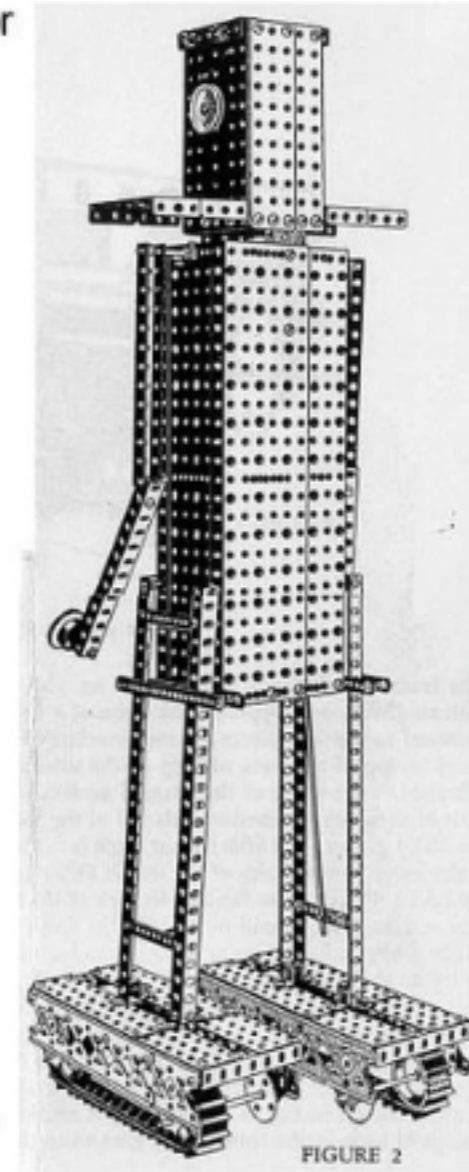


FIGURE 2

3. Surround yourself with both quantity and diversity in tools, materials, methods, and perspectives



4. Dabble hard - gain skills, but be suspicious of expertise



5. Look for exaptations and surf the adjacent possible



6. Avoid schedules and goals, but make time and space for tinkering, and include time for daydreaming

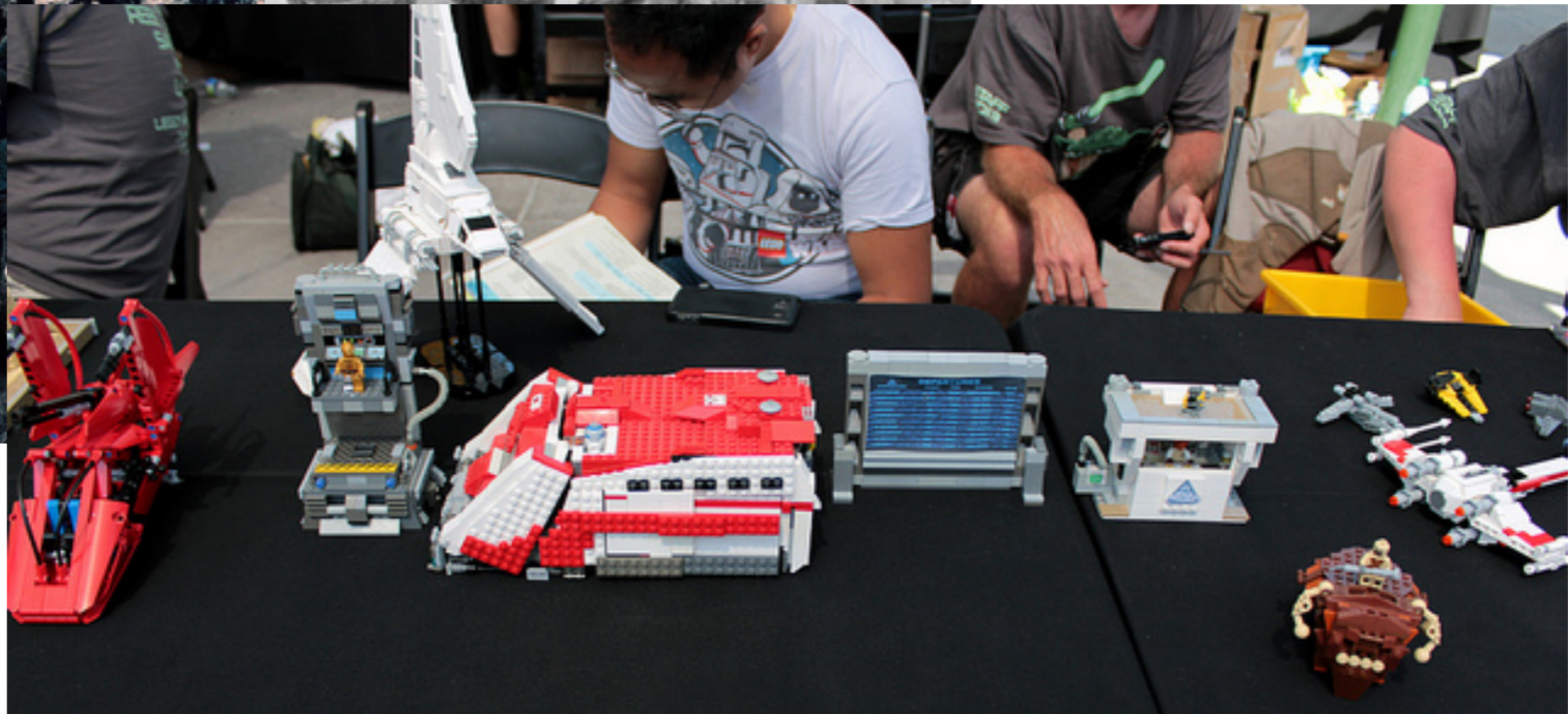
The image shows a vintage 'TIME TABLE 1974' for June 12. The table is divided into two sections: 'NORTH BOUND' and 'SOUTH BOUND'. Each section has columns for 'No.', 'ARRIVE', 'DEPART', and 'REMARKS'. The 'NORTH BOUND' section has one entry: No. 16, arriving at 6:15P and departing at 6:20P, with the remark 'PASSED 10:50'. The 'SOUTH BOUND' section has one entry: No. 15, arriving at 11:48AM and departing at 11:49AM, with the remark 'PASSED'. There are also some faint markings like 'PASSED DUE' in the lower rows of both sections.

NORTH BOUND				SOUTH BOUND			
No.	ARRIVE	DEPART	REMARKS	No.	ARRIVE	DEPART	REMARKS
16	6:15P	6:20P	PASSED 10:50	15	11:48AM	11:49AM	PASSED
			PASSED				PASSED
			DUE				DUE
			PASSED				PASSED
			DUE				DUE

7. Do not fear dismantling and starting afresh



8. Beware of teams, but cultivate networks: seek people, not processes



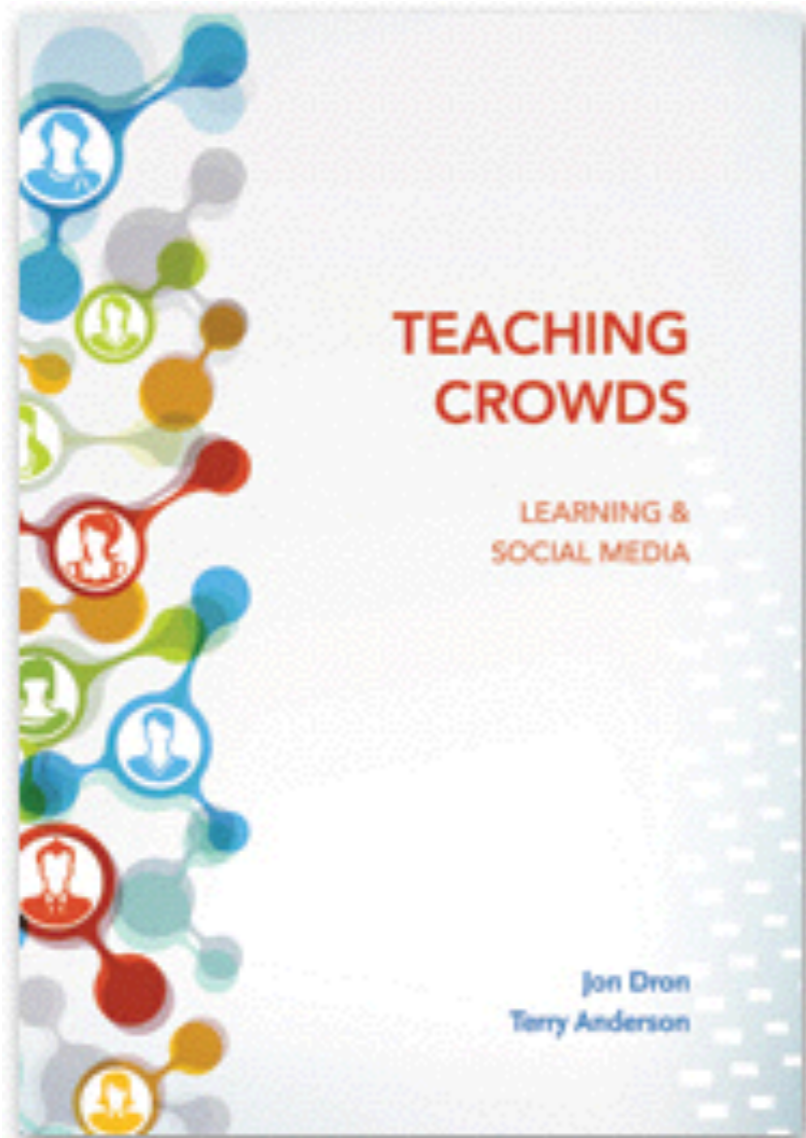
9. Talk with your creations and listen to what they have to say



10. Reflect, and tell stories about your reflections, especially to others



just another way



<http://teachingcrowds.ca>

Thank you!



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[https://landing.athabascau.ca/
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